

COUNTRY GUIDE

THE FARM MAGAZINE

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ALLIS-CHALMERS

COUNTRY GUIDE

THE FARM MAGAZINE

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AUGUST 1965



Corn people have made so much progress in growing and handling their crop, that it's time to put a new name on the resulting product, says Peter Lewington on page 13. Call it cornlage! he suggests and goes on to explain why quality corn silage (such as that pictured spewing out of a feeding wagon) is best measured by the yield of grain corn per acre. He also points out that a balanced ration for finishing steers is created by adding 10 lb. urea, 10 lb. limestone and 100 lb. dried brewers' grains to each ton of corn during the filling of the silo.

These are days of high hog profits, but undoubtedly lower prices will return. Those who want to be ready will be interested in Cliff Faulkner's story on page 14 of how hogman

Jack Perkins found some serious weaknesses in his hog program, devised a corrective program including supersanitation and quarterly farrowing, and set up a chart listing his objectives, and against which he can compare month-to-month performance of his pigs.

If you think the poultry industry has been lost to the farmer, turn to page 17, to see how one community is expanding rapidly as more and more farmers turn to laying hens or begin producing started pullets. It's an industry effort. Farmers, feedmen and egg handlers have all been involved in this encouraging story.

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About Our Cover

Farm wives provide a welcome service, delivering in-the-field coffee breaks to the combine crew during busy harvest time.—Saskatchewan Government photo.

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Serving Canadian Farmers Since 1882

"Let's talk Fertilizer . . ."

by Phil Parrish, P.Ag.
Northwest Brand Fertilizers

Excellent moisture conditions across the prairies have produced good stands of forage. On many farms throughout the west, however, the heavier than average rainfall has produced a great many stands of hay and pasture that are losing money for the farmer as a result of low fertility. Dollars are lost through low yields, feed low both in protein and carotene content. Such fields are easily identified because of their stunted growth, sickly pale color, or rich green patches resulting from animal droppings. These fields exhibit the traditional symptoms of nitrogen deficiency. Applying adequate rates of Northwest Fertilizer this fall will help eliminate this serious condition.

Establishing the best recommended forage mixture for your area, based on whether or not the stand is to be used for hay or pasture, plays an important factor in a successful forage program. However, once the stand is established, management becomes the key to greater profits.

In spite of the season of the year forages should be prepared for winter as soon as possible. For this reason the following management practices are recommended:

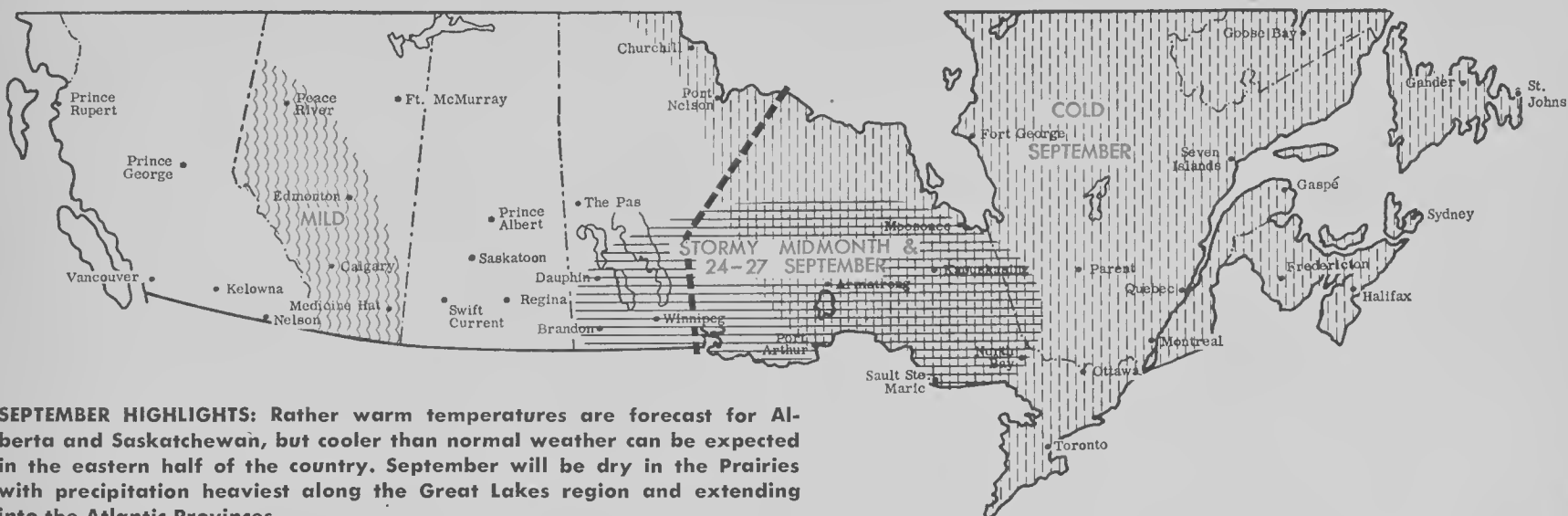
- Harrowing or floating to spread manure droppings. Those rich, lush green patches that show up in the field are unpalatable to cattle because they lack essential plant sugars.
- Clipping left-over forage on pastures. This is necessary to prevent the sward from becoming stemmy or woody which will result in unproductive and unpalatable forage.
- Controlling the height of grazing. Allowing the cattle to graze too close, either under dry land or irrigated conditions, will cause the roots to become underdeveloped so that their ability to supply the plant with vital nutrients is severely curtailed. Under such conditions the sod becomes a thin pad, loses its moisture retaining properties and dries out very rapidly. The result, as far as the farmer is concerned, is a field that can be considered nothing better than an exercise yard for his cattle.
- Hay fields, particularly stands of alfalfa, should not be cut too short, or too late in the season. Sufficient top growth should be left in order to give the plant a chance to make good top and root growth prior to winter in order to build up a food reserve within the plant.
- Applying fertilizer in adequate amounts. As a general rule grasses respond to a nitrogen fertilizer such as Northwest Nitro Cubes (33.5-0-0), whereas legumes usually respond to a phosphorous fertilizer such as Northwest's 11-48-0. Where hay and pasture fields contain a mixture of grasses and legumes a nitrogen-phosphorous fertilizer is recommended — Northwest's 16-20-0, 27-14-0 or 23-23-0. Fertilizing hay and pastures in the early and late fall is a management practice that should be given more consideration by prairie farmers. A few of the advantages worth noting are:
 - Substantial savings in price during the fall season are offered to farmers by Northwest Fertilizer Distributors.
 - Fall fertilized forages make stronger, healthier, growth in root and top growth, and are therefore better able to withstand the winter season. A good top growth enables the plant to trap more snow thus providing better winter protection and more moisture in the spring.
 - Forages fertilized in the fall usually commence growth earlier in the spring. Pastures are often ready for grazing two or three weeks earlier thereby providing considerable savings in dry feed costs. Hay fields are able to make a faster recovery and produce earlier growth.
 - When forages are fertilized in the fall the job is done. You don't have to worry about soft, wet fields or late snowfalls in the spring. The fertilizer is in the ground ready for "go".

How about your hay and pasture lands? Have you given them the consideration that their high profit potential warrants? Talk it over with your nearby Northwest Brand Fertilizer Distributor — He can help you find quite a few "extra acres" in your present hay and pasture land. Better see him very soon. He has the **BIG DIFFERENCE** with his better service and Northwest Brand Fertilizers.



NORTHWEST BRAND FERTILIZERS
MEDICINE HAT, ALBERTA

Prepared by IRVING P. KRICK ASSOCIATES

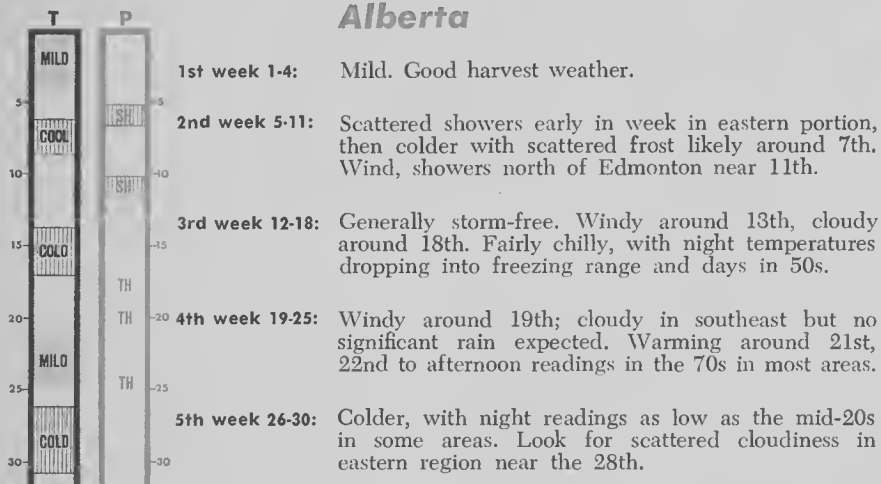


SEPTEMBER HIGHLIGHTS: Rather warm temperatures are forecast for Alberta and Saskatchewan, but cooler than normal weather can be expected in the eastern half of the country. September will be dry in the Prairies with precipitation heaviest along the Great Lakes region and extending into the Atlantic Provinces.

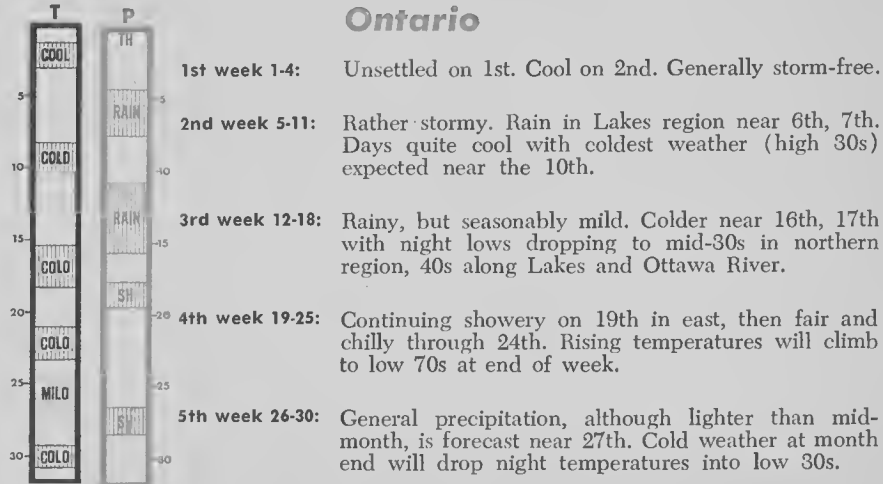
SEPTEMBER 1965

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—Ed.)

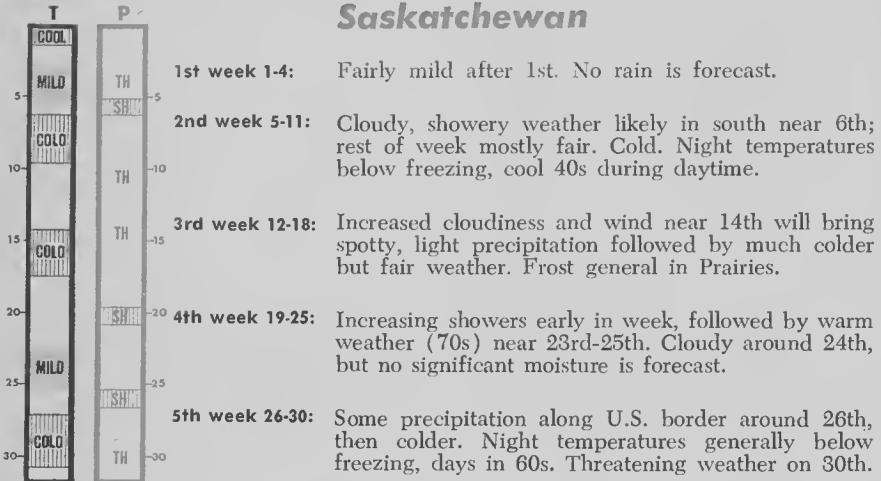
Alberta



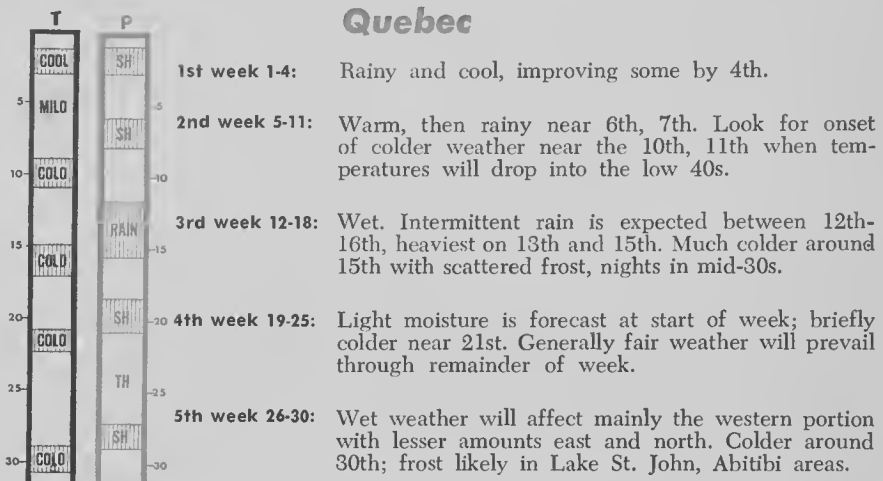
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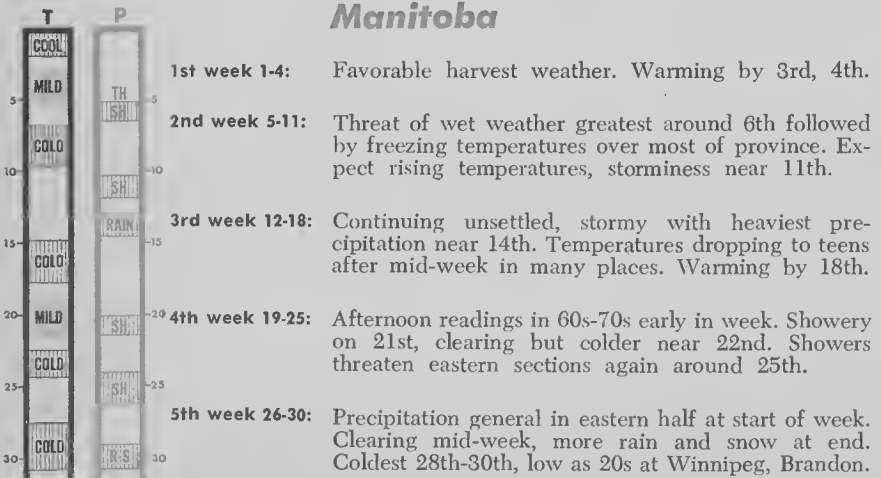
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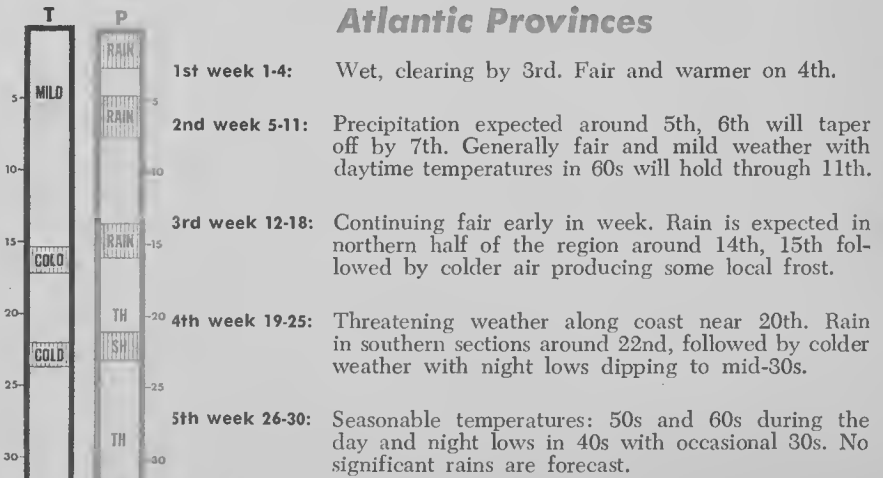
Quebec



Manitoba



Atlantic Provinces



Key to Abbreviations: T, temperature; P, precipitation; CL, cooler; WM, warmer; TH, threatening; SH, showers; R-S, rain or snow.

The Canadian Wheat Board's initial payments to producers for the basic grades of Western wheat, oats and barley delivered during the 1965-66 crop year will be the same as for the previous year. For No. 1 Manitoba Northern Wheat, basis Fort William, Port Arthur or Vancouver, this is \$1.50 per bushel.

A solar hog house designed and built in Illinois gets its heat from the sun's rays.

Appointed director of Ontario's Rural Learning Association (a merger of Ontario Farm Radio Forum, Ontario Folk School Council and Ontario Rural Leadership Forum) is Bill Skerrett, a specialist in extension education and rural sociology.

The recently-formed Agricultural Products Marketing Council in Alberta has arranged to meet with executives of the Alberta Swine Council, the Alberta Potato Growers' Association and the Alberta Broiler Growers' Association to discuss marketing plans submitted by these groups.

C. L. Shuttleworth of Winnipeg has been appointed to the Board of Grain Commissioners.

A new 110,000 bu. composite grain elevator with an extra long 34-foot dumper and a 40-ton scale

which will weigh and empty the biggest truck now found on farms, including even some semi-trailers, has been opened by United Grain Growers Limited at Assiniboia, Sask. It is the fifth such elevator built by the firm.

More than 22,000 cattle contracts have been traded since the Chicago Mercantile Exchange began trading in live cattle futures 6 months ago. As a result, some brokers call it the most successful new commodity futures market in their history.

Chile is buying about 850 head of Hereford cattle valued at \$200,000.

Six members of the University of Manitoba staff are going to Thailand to assist in the development of a new university.

Three Canadian Holsteins exported to Britain last December took a first place in the British Friesian classes at the Derbyshire Show, and also provided the breed champion.

A farm management economist in North Dakota says United States pork production is expected to fall to the lowest level in several years in the next few months.

Ontario fruit and vegetable growers are losing business to U.S. exporters because they don't pool their selling efforts, says Dr. H. L. Patterson

of the Ontario Department of Agriculture. He said Ontario supermarket chains are importing more fruits and vegetables than ever because Ontario producers do not make their products available at a central location.

Herb Arbuckle, formerly vice-chairman of the Ontario Farm Products Marketing Board, has been named chairman.

Kansas, which had only three commercial feedlot operations in 1948, now has 70 and those 70 handle 200,000 head or 49 per cent of the cattle being fed in the state.

The Canadian Seed Growers' Association members have been warned by President Gordon South that hybrid wheat now under development is likely to become a reality and that thousands of acres of crossing blocks will be needed to supply the seed needs of farmers who will have to renew their seed every year.

Canada's index of prices received by farmers from the sale of farm products (1935-39 equals 100) increased in May to 258.2 from 254.8 in April.

The first step in the development of some 40,000 acres of irrigable land in the Outlook-Broderick area of the Saskatchewan Irrigation Pro-

ject has been taken with the awarding of a \$639,000 construction contract.

Farmers dissatisfied with the decision of Farm Credit Corporation on their application for a loan will now be able to take their case to a provincial appeal board. A total of 78 persons have been appointed to membership of the nine provincial boards. They are farmers.

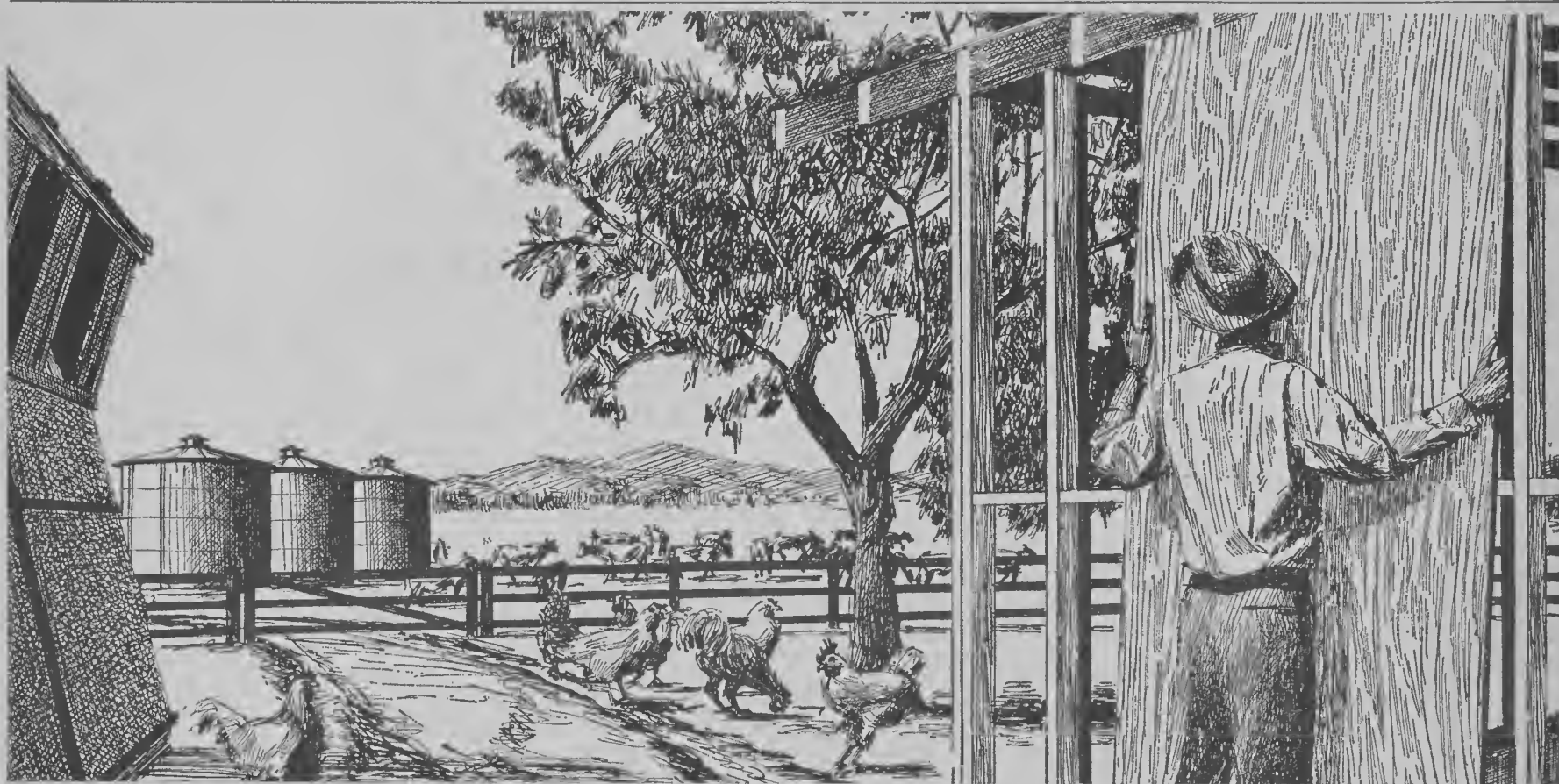
A provincial 4-H camp, called the first of its kind in Canada, has been established in Saskatchewan 13 miles southwest of the main South Saskatchewan River dam reservoir.

A 6-year-old Ayrshire cow owned by Ellen Bompas, Richmond, Ont., won the inter-breed best udder class at Lachute Fair, in the first show of the season with the new Hays Classification.

Rapeseed acreage of 1,485,000 this year is nearly double last year's 791,000, according to DBS.

Both sulphur and potash fertilizer will be needed for prairie crops in the near future, predicts A. M. Runciman, president of United Grain Growers. He says recent research shows that large areas of northern and western Alberta need sulphur. Potash shortages have shown up in

(Please turn to page 9)



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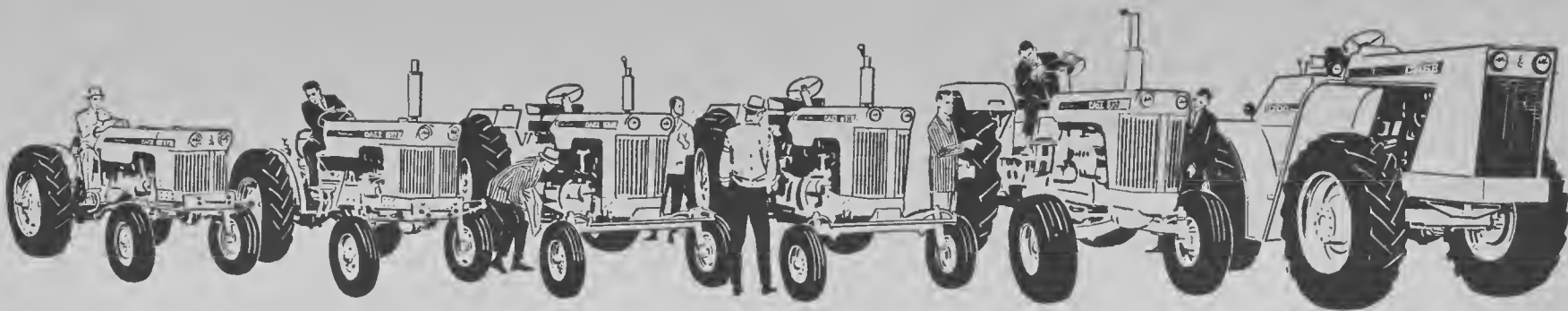
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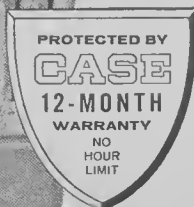
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Feed Grain Policy— Time for Caution

RECENT COMMENTS by Hon. Maurice Sauvé, Federal Minister of Forestry and the minister responsible for Canada's feed grains policy, revealed an alarming misunderstanding of that policy and of the basic trends that are influencing this country's livestock industry today.

Speaking at Drummondville, Que., Mr. Sauvé made a vigorous and far ranging attack on the Canadian Wheat Board. In his attack, he made a series of undocumented charges which left people who are familiar with the Wheat Board shaking their heads in dismay.

He said "... the Wheat Board, by juggling with delivery quotas, adjusting interim payments and regulating the allotment of freight cars, has sometimes been able to bring about an artificial rationing of feed grain availabilities at the Lakehead . . .", and he went on, "It is no secret that such practices may tend to keep feed prices at a level which is higher than that warranted by the state of supply and demand . . ."

He said, "The situation gives rise to a two-price system for grains, to the detriment of feeders in Eastern Canada."

He charged that there is discrimination practiced as between domestic and export cargoes, in shipping from the Lakehead, and that when there are bottlenecks at the elevators, feed grains come out second best.

He stated, "It is a known fact that private elevators prefer the more lucrative handling and storage of export grains."

Mr. Sauvé is particularly incensed at what he calls "a two-price system" in the Prairies. At one point he refers to it as "... the monopoly prices of the Wheat Board and the competitive prices within the Prairies."

He goes on to suggest, "If it were not for the fact that Western feeders obtain their grain at lower costs, there would be no need for the Government to assume any responsibility for freight charges to move grain to Eastern Canada."

Finally, in the most sweeping charge of all, he stated, "The Canadian Wheat Board, by making full use of all the powers vested in it by law, holds the fate of Eastern agriculture in its hands. Indeed, with a complete monopoly plus control of grain imports with the exception of corn, the Board can control availabilities and prices of feeds shipped to Eastern Canada and calculate selling prices in order to keep them at profitable levels for Western grain growers while taking care to protect Prairie feeders. To achieve this, the Board merely has to maintain a sufficient difference between prices charged to Eastern consumers and the competitive prices in the Prairie Provinces and the trick is done."

LITTLE SENSE TO OUTBURST

Mr. Sauvé's outburst of undocumented charges makes little sense.

He went on to suggest several courses of action by which the rest of Canada could fight back against its alleged tormentor, the Canadian Wheat Board. But if Mr. Sauvé's assumptions are incorrect, it follows that his proposed remedies, the primary one of which is to set up an Eastern Feed Grain Agency which has the apparent purpose of doing battle with the Wheat Board, and to implement a system of equalization payments for

livestock producers outside the Prairies, would serve little useful purpose.

Although Mr. Sauvé doesn't seem to be aware of it, livestock men right across the country are facing the same problems of low livestock margins. Even those in the Prairies who do not grow their own feed grain, have been squeezed by feed costs. The reason is that grain growers in the Prairies, through their Wheat Board (and grain growers themselves pay the costs of operating the Wheat Board) are selling their grains at world prices. It is supply and demand that sets those prices, not farmers themselves. Prairie grain growers haven't chosen to willingly subsidize either Prairie livestock men or British Columbia or Ontario or Quebec livestock men either.

But for Mr. Sauvé to suggest that the Wheat Board holds the fate of Eastern agriculture in its hands is foolish beyond words.

The Wheat Board does not interfere with the movement of corn into Canada. In fact, its real influence on the imports of other feed grains could be seriously questioned. Since Canadian feed grain is selling at world prices, this means that feed grain is available to farmers anywhere in Canada at world prices.

Prairie grain growers and their agency, the Canadian Wheat Board, can hardly do more. The government, of course, does do more, by paying freight assistance on the feed grain that does move to feeding areas outside the Prairies. It's a subsidy that can hardly help but benefit livestock producers in these areas, at the expense of producers in other areas, for it is a subsidy, from the federal treasury, to producers in these areas, which is not given to Prairie livestock men.

To suggest that the subsidy really works to the disadvantage of the person getting it, is indeed to twist common sense and logic.

Mr. Sauvé's charges were particularly unfortunate because they came at a time when the Canadian Economics Research Council is studying the implications of feed freight assistance, and will be releasing its report within a few months. Once that report is available, the effects of this country's feed grains policy will be more understandable and plans can be made to remedy any injustices resulting from it.

FAULTY ASSESSMENT

The charges also came at a time when the Canadian Federation of Agriculture has hammered out a feed grains policy which has met with approval from delegates from all parts of the country. CFA delegates in effect, rejected Mr. Sauvé's views when they considered his comments during their semi-annual directors' meeting in recent days, and then reaffirmed their own hard-won policy.

But what gives cause for concern is that Mr. Sauvé, a cabinet minister, is prepared to offer a program that would bring a great change to the structure of this country's agriculture, without really understanding that agriculture. His assessment of the feed grains situation is faulty. His assessment of present trends in agriculture, and the reason for them, are just as faulty. For he proceeds to suggest that as time goes on, a larger proportion of this country's livestock must inevitably be produced near the large centers of population. He reasons that as livestock become more efficient in converting feed into meat, it will make greater and greater economic sense to

bring the feed into the areas of large population and feed the livestock there. In effect, it will become more economical to grow the grain on the Prairies and ship it to farms near the big centers of population for feeding to hogs and cattle and poultry there.

Such a proposition defies present trends in livestock production and flies straight in the face of logic. Any national policy designed to shift livestock production from this country's most productive land areas, toward the major centers of population, and the areas where land costs are highest, would be doomed to failure. Worse still it could sidetrack this country's agriculture in its present drive for greater efficiency. It would penalize farmers who are now moving toward more efficient livestock programs and it would bring only short-term benefits to producers in areas where production must be more costly. In the long run it would push the costs of producing farm products to levels where Canadian farmers could not compete with farmers in other countries. Rather than increasing farm output, and boosting exports, such a move would cripple Canada's agriculture, leave it at the mercy of government and of farmers in more progressive parts of the world.

Canadians can sympathize with Mr. Sauvé's program. As minister responsible for ARDA, he can see clearly that many small farmers in this country are indeed in trouble. But to try to solve their problem at the expense of farmers who are building efficient farm units is no answer. The small farmers in this country, many of whom are in Quebec, must find ways to boost their output. Livestock production is one good way to do it. But what Mr. Sauvé doesn't realize is that this country's livestock industry can not develop fully in areas where it must rely totally on bought feed grains.

LAND USE THE ANSWER

A few years ago, Ontario's farm leaders and leading farmers saw clearly the problem. They found that livestock enterprises based solely on purchased grains, could not be profitable enough, even though the government paid freight costs on the grain. Prairie farmers too, lacking any subsidy, have been finding this out in recent years too.

Ontario's solution was to move into an intensive land use program. Farmers boosted their corn acreage because this represented cheaper livestock feed than they could buy. They turned to higher yielding forage varieties, greater use of irrigation, fertilization, and other practices of intensive farming. As a result, they developed a dynamic and efficient agriculture. They built new feedlots for beef cattle, and new hog buildings for their expanding swine herds and developed cropping programs to go along with their new needs.

Farmers in the Prairies too are fast discovering the truth of this fact — that livestock and land go together. Livestock — whether cattle or hogs, and often poultry too — must be fed right in the area where the feed can be grown, if they are to be efficient.

MOVE TO INTENSIVE FARMING

To further meet the cost-price squeeze, Prairie grain growers are cutting back on their summerfallow acreage, growing grain year after year, and putting in livestock units. This way, they cut production costs, provide an outlet for their labor the year round, and thus build up efficient farm enterprises. Farms operating in this manner are the profitable ones today.

Purchased feed grains are necessary to bolster a hog industry or beef industry in most areas, but in Canada today, unless some government program totally disrupts the natural laws of economics, it is doubtful if any area can build a thriving livestock industry on purchased feed grains alone. The heart

(Please turn to page 38)

News Highlights

(Continued from page 5)

certain peat soils, vegetable crop lands and some Gray-Wooded soils in both Alberta and Manitoba.

Some of the money made available for farm subsidies might be better spent on providing improved educational facilities for Canada's farm population, says Arnold Platt, executive secretary, United Farmers of Alberta.

The growing scarcity of farm labor was one of the main topics at the conference of Canada's 10 provincial agriculture ministers and much of the time was spent discussing Manitoba's new pilot project for training farm labor which will begin this fall. The province will take 15 young persons and give them a course of instruction including classroom lectures and actual training on farms.

Members of the Ontario Milk Commission (which supersedes the old Milk Industry Board) set up to administer the province's new Milk Act, are George McCague, chairman; Gordon Greer; Alex Thurston; M. A. Craig, Q.C.; and Prof. S. H. Lane.

Quebec's Deputy Agriculture Minister, Ernest Mercier, says there must be national marketing boards for Canadian farm products and

there must be a dual price system. Speaking at the Conference of Agriculture Ministers, he said marketing boards similar to the Canadian Wheat Board are needed to distribute farm products without the depressed prices which usually accompany surpluses.

Cattlemen wishing to take part in bull progeny test programs at approved commercial feeding lots are being offered financial help of up to \$25 per calf entered, by the Canada Department of Agriculture. CDA has also brought about agreement in principle on uniformity of testing and reporting at bull testing stations operated by the provinces.

New temperature-controlled railway cars are being readied by the Canadian National Railways to take care of the growing volume of fresh garden crops being grown by Canadian market gardeners. Cars are equipped with a temperature control unit connected to a power plant beneath the car. Some 300 cars worth \$3 million will be in service by fall.

Art Bennett, who has been Associate Director of the Extension Branch, Ontario Department of Agriculture, has been named Director to succeed Doug Parks who was named Deputy Minister of Agriculture in Nova Scotia. Ed Starr has

been named Associate Director while H. E. McGill has been named Livestock Commissioner in the province, succeeding retiring R. H. Graham.

China has purchased another 23.3 million bu. of wheat from the Canadian Wheat Board to bring total purchases to 187 million bu. since August 1963.

Poultry commissioner I. Campbell of Saskatchewan predicts producers will receive a 5 cents a doz. egg deficiency payment this fall.

Named director for the Agricultural Pavilion for Expo '67 with responsibility for sponsorship sales is Dr. J. H. Hare. He is on loan from Pfizer Company Limited of which he is a vice-president.

Farmers may soon be able to choose the sex of calf to be produced by artificial insemination. In one German test there was 80 per cent success when male and female sperms were separated. Now some 200 cows are pregnant in Germany and Britain with separated male and female sperms. If these trials are successful, the practice should be available to breeders within months.

Expo '67 has confirmed that the agricultural exhibit at the world exhibition will be a \$3½ million presentation on a 7-acre site. The exhibit will tell the history of agriculture, illustrating how man copes with the problems of food and the population explosion.

ULTRASONIC INSECT CONTROL

Scientists have found that bats emit high-pitched chirps at the rate of about 10 per second, and that certain moths on hearing these, take evasive flight action to avoid capture. Now scientists are trying to apply this information in insect control. In Ontario, when they broadcast bat-like ultrasound over a plot of sweet corn, infestation by the European corn borer was reduced by 50 per cent.

Scientists are also working with various rays in attempt to control insects attacking stored grain. V

FARMERS PAY FOR GRAIN STRIKE

As this issue goes to press, the prolonged strike of Vancouver grain handlers, which began June 2 against the Alberta Wheat Pool terminal and which later tied up most other terminals at Vancouver too, remains unsettled, although the union appears likely to win most of its demands, with farmers paying the shot.

The strike slowed up the movement of export grain out of the Pacific port, prevented the recent export year winding up as the second best in history (exports fell slightly short of 400 million bushels), caused President W. J. Parker of Manitoba Wheat Pool to charge that export sales were being lost every day the strike went on (at a time when Prairie crop prospects indicated this year's crop could be the biggest in

(Please turn to page 38)

GUIDE POSTS

UP-TO-DATE
FARM MARKET
FORECASTS

WHEAT PILES will be a familiar sight on the Prairies again as bins on and off Canada's farms prove inadequate to hold the prospective record crop along with a 500 million bushel carry-over. Indeed, the prospect of a total wheat supply well over 1,200 million bushels places even greater emphasis than usual on sales abroad in the coming year. Meantime, expect quotas to be fairly restricted.

RAPESEED PRODUCTION will rack up another record. The increase reflects the big acreage increase compounded by excellent moisture conditions. Future quotations of recent weeks indicate lower prices ahead. The big U.S. soybean crop will compete strongly for oil markets. The 1965 crop may well prove the test of how far the rapeseed market can be developed at prices still profitable to the western farmer.

HAY AND PASTURE have been short over much of Eastern Canada forcing farmers in the hardest hit areas to cut some of their grain crops for feed. Combined with the lower grain yields resulting

from dry weather, this means a strong demand for Western feed grains is in prospect this fall and winter.

GOOD CROPS OF FEED GRAINS in the Prairies, along with the higher proportion of the oat acreage which will be harvested as grain since fodder supplies are excellent, means more grain available for feeding. However, the expected strong demand from Eastern Canada and the moderate carry-over give no reason to expect "fire sale" prices.

LAMB PRICES will drop back as marketings, particularly in Western Canada, peak in the next 2 months. But prices will likely continue higher than at the same time last year because overall lamb supplies are down.

FEEDER CATTLE prospects for fall are good, with prices likely to be close to the finished cattle level. American demand has been picking up and should keep the market for calves and yearlings strong.

HEAVIER FALL HOG MARKETINGS will continue to sell at or close to present prices with American demand taking up the surplus. The trend could continue into the early months of 1966 as American fall hog crop will be the smallest in 8 years. Canadian hog men would do well to watch the trend, however, for once the American hog production starts to rise the price "honey-moon" will be over here in Canada.



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In the hardest hit regions hopes for a good main hay crop turned quite literally to dust

[Guide photo]

Eastern Drought Eases

AS SPRING turned to summer the rains still failed to materialize across great tracts of Eastern Canada. In some areas precipitation has been the lowest since records have been kept. For some farmers it has meant an intensive squeeze as they purchased more and sold less; some farmers, for instance, in the Pembroke area of Ontario were obliged to buy hay during June and July. In the Maritimes, the cost of the drought includes forest fire losses and a reduced strawberry crop.

The Ontario Government busied itself with attempts at rain making, despite the fact that many meteorologists and geographers assert that you can't do much about the weather. Farmers who knew that they couldn't do much about the weather made every effort to minimize the adverse effect of the minimal rainfall. Some non-productive fields were ripped up and seeded to oats or Sudan x sorghum while there was still time for the latter crop to mature. Interest continues in farm pond construction.

For those fortunate enough to have a carry-over of some corn silage or hay, supplementary feeding has reduced overgrazing of pastures. For those people who have now been



[CDA photo]

Canada Department of Agriculture moved eight irrigation outfits, each with pumping equipment and a mile of water pipe, from the prairies to Eastern drought area. This unit is laying an inch of water on a parched acre in Renfrew County, each hour

Drought Assistance for East

Ontario, Quebec farmers get \$20 million aid; drought assistance administration established

THE DROUGHT has brought action from the Ministers of Agriculture of Canada, Ontario and Quebec, with the announcement of special feed subsidies to farmers in affected areas. Legislation setting up crop insurance plans for the two provinces is being considered.

The magnitude of the drought can be seen with Agriculture Minister Stewart's announcement that it will leave Ontario short some 33 million bushels of grain as well as a large amount of hay.

The feed subsidy rates announced by Messrs. Hays, Stewart and Courcy will be \$30 a ton on concentrates and \$15 a ton on hay. It will be paid on feed to farmers in the two provinces where shortages loom because of the drought. The plan has been designed so farmers in the drought area should still make effort to harvest as much feed as possible.

The drought area, which includes about 15 counties in each province,

will be divided into sub-areas. In each of these sub-areas, the normal or average feed production will be compared with the level of production in 1965, with the subsidy based on the difference.

For example, a farmer in an area with a 1965 productivity level of 60 per cent, and overwintering 50 animal units, would be entitled to two-thirds of a ton of concentrate feed (grain or mixed feed) per cow or 33 tons for the herd. His alternative would be 41 tons of hay. This would mean about \$990 worth of assistance for grain or \$615 for hay.

The entire program will cost about \$15 million in Ontario and \$5 million in Quebec, with the cost being split between federal and provincial governments. This figure could change as growing conditions change in the remainder of the season.

A drought assistance administration is being established, made up of C. R. Phillips, Canada Depart-

obliged to purchase feed for 3 years in succession there have been no reserves to fall back on; federal and provincial help has been promised.

Some fringe assistance has been specified. Over 70,000 pounds of Sudan x sorghum seed is apparently to be made available. According to Minister of Agriculture Harry Hays, this is one of the crops suitable for fall pasture. Omitted from the advice was the information that the crop is susceptible to frost. The crop will have to make quite remarkable growth and the customary first frost will have to be delayed if this particular piece of aid is to be of the slightest value.

An earlier CDA announcement referred to the movement of eight PFRA water and irrigation trucks to eastern Ontario and western Quebec. On the heels of this announcement came a series of showers which made miraculous changes in many crops; it appeared that there was nothing that the government could do that a good rain couldn't do better. The rains were, of course, too late to benefit the main hay crop and a hay transportation subsidy is again probable this year. Without some generous aid, farmers would be obliged to sacrifice breeding stock.

Immediately prior to the early July showers some corn had still not even germinated and the fate of a large acreage of silage and husking corn hung in the balance.

While the drought is serious it should not be credited with all the actual and estimated reduction in yield. Most early planted fields of corn are growing well, while over the fence the late sown seed has barely germinated and only a few sparse and dehydrated shoots brave the daily sun. The value of good management and timely field work is always evident; it is all the more apparent during a crucial year of drought.—P.L. V

ment of Agriculture, chairman; Ed Starr, Ontario's Associate Director of Extension; and Cyprien Pelletier, Department of Rural Development, Quebec.

With their temporary relief measures under way, agriculture ministers turned their attention to long-term protection against natural disaster, and found themselves looking at crop insurance. Mr. Courcy stated the Quebec government intends to introduce legislation for crop insurance as soon as a current study is completed. Mr. Stewart said immediate planning would begin for a crop insurance plan suitable for Ontario. It was noted that present regulations under the federal scheme don't cover forage and hay crops, but the act itself doesn't prohibit such coverage.

Under the present federal crop insurance plan, the federal government pays 20 per cent of the premiums plus half the administrative costs, but Mr. Hays has indicated that if, after present studies are concluded, changes in the act appear necessary, these will be made. Only four provinces—the three prairie provinces and Prince Edward Island—now use the crop insurance plan.—Jack McPherson. V

Walter Smith likes "getting a little help from the elevator man"



"I haul my wheat to United Grain Growers elevator," says Walter Smith who farms a section 5 miles north of Moose Jaw. "I started that about 2 years ago when they first came to town, got to know the local agent, Albert Simmie, and we got along pretty good. He and his fertilizer, and cattle feed, pig feed, and everything else you want to buy is all under one roof. We thought that was pretty good. Once in, and we're right back out again. It's got a real good scale where you can drive in, dump the load . . . it's fast . . . no hold-up. We enjoy having the United Grain Growers elevator here very much."

Before coming to U.G.G., Mr. Smith was bothered by having elevators close at 5 o'clock. "When the farmer's busy in the Fall, you know, hours don't mean anything to him."

Another agent used to spend so long with his sieve looking for dockage that "we've got the load all shoveled off and the elevator man just hands us a ticket. I like it the other way around, getting a little help from the elevator man while we're unloading." He gets the help he wants from U.G.G. agent Albert Simmie.

Walter Smith has good advice for elevator companies (including those owned by farmers, like U.G.G.): "There's one thing about a farmer: if he's pleased, he'll never change if he lives to be a hundred. But just step on his toe once and he will look for someone else to please him. Farmers are funny that way."

Advice like that gets paid close attention at United Grain Growers. It frequently comes from farmers who are Directors of U.G.G. Local Boards or delegates to the Annual Meeting.

Over the years U.G.G. has learned plenty about how to find and develop good agents. It's U.G.G.'s belief that service to farmers won't be first class unless the agent has these qualities.

1. He must be absolutely honest.
2. He must be a hard worker.
3. He must really know the grain business.

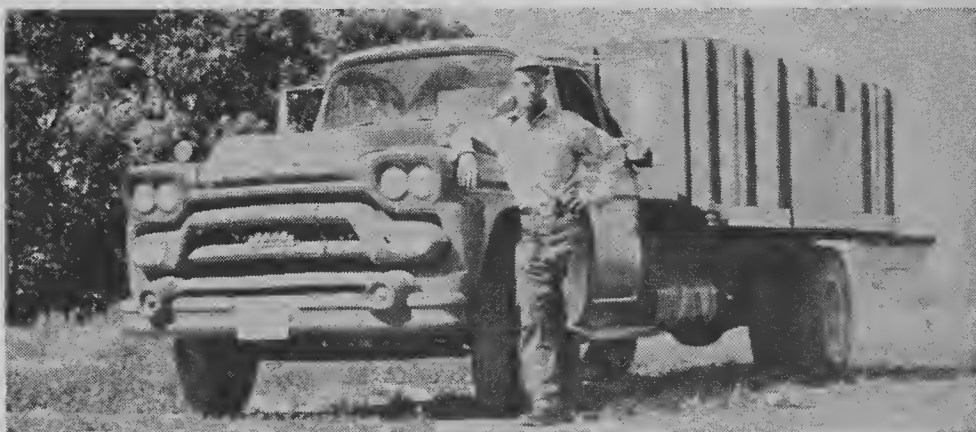
It's nice to hear Walter Smith agree. His down-to-earth examples of good service, fast service, and convenient one-stop shopping for farm supplies show U.G.G. beliefs are right.

We aim to keep Mr. Smith pleased until he's more than a hundred.

What happens when U.G.G. introduces real Farmers' Company competition to a busy grain point where there's never been a U.G.G. elevator before? Here are the comments of three farmers in the Moose Jaw area. U.G.G. built there for the first time in 1963.

If there isn't a U.G.G. elevator in your district, there may be one coming. The 59-year-old farmer-owned Company is on the move! So far this year, U.G.G. has built new elevators at Swift Current, Marengo, and Stoughton, Sask., Wanham, Falher and Keg River, Alta., and Brandon, Man. Maybe you'll get the benefits offered by the Farmers' Company soon.

"I haul all my wheat to the nearest U.G.G. elevator . . . 23 miles away" – Carl Kettleson, Buttress, Sask.



Carl Kettleson has a three-section mixed grain/cattle farm. "I truck all my grain 5½ miles down a dirt road and 18 miles by highway to United Grain Growers in Moose Jaw."

This U.G.G. elevator was built only 2 years ago. It was the first in Western Canada to have a scale and dumper capable of handling big semi-trailers. U.G.G. is trying to find out whether bigger loads will cut hauling costs for farmers.

That may be why Carl started hauling to U.G.G. His big 3-ton truck takes in about 300 bushels every trip.

Carl gives this reason for going out of his way to U.G.G.: The agent. When he wants something or has some problem, U.G.G. agent Albert Simmie first says, "I'll look after you!" . . . and then he does just that.

Finding and training agents like that is U.G.G.'s best way of attracting customers like Carl Kettleson.

John Scott likes U.G.G. because "it isn't too big."

John Scott farms about 1,000 acres 20 miles south of Moose Jaw. Every delivery is a 50-mile trip: 20 in, 20 out, and 10 around town. "You never just get to the elevator." He hauls all his grain to U.G.G. now because he is being looked after, and because U.G.G. is not pushing a lot of farm policies he opposes. He likes the way U.G.G. "doesn't act too big" and keeps in touch with the farmers. That is the way farmers like J. G. Scott want it.



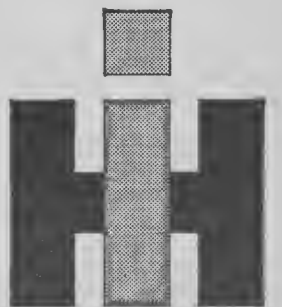
Over 760 Farmer-Owned Elevators



Three International Favourites

⎓ D-line pickup, Loadstar and Canadian wheat ⎓

Why is Canada's wheat so popular? One word sums it up: *quality*. The same holds true for International Trucks. Take the new D-line pickup for example. It's the best looking pickup you've ever seen. And the best riding. The D1000 model has Velvet Smooth torsion bar ride. Makes gravel feel like blacktop. Steering is smooth and easy. And it's built with the "big truck" quality that has made International the world sales leader in heavy-duty trucks. It has a husky frame that won't twist. And a sturdy truck engine that doesn't strain. All-truck components save you money in bigger trucks too—like the famous Loadstar. Wide track front axle gives good stability on rough ground. And the Loadstar's in a class by itself for comfort and easy steering. Next time you're in town, get the feel of real truck quality. Test drive International pickup and Loadstar *soon*. **INTERNATIONAL TRUCKS**



Out with the silo salads and the tall and tonnage yardsticks for corn!
This beefman grows 140 acres of corn, ensiles it with additives, and feeds 700 steers with it

Let's Call It

Cornlage



[Guide photo]

Markusse stands in a field of single cross corn which was planted in late April at 30,000 plants per acre. The date of the picture was July 3 in a year of unprecedented drought

CORN SILAGE is obsolete — if you measure the crop in tons per acre or even by the height of the stalk. The feed which Ontario's top cattle and corn farmers will be storing this fall is so different from the corn silage of yesterday that it really demands a new name. The old style silage is too often merely pickled silo salad, while the new concept in corn silage results in a completely balanced feed for finishing beef cattle. There is a world of difference between haylage and odorous grass silage. There is an even wider gulf between the old and the new in corn silage. The concept is revolutionizing Ontario beef production and is surely worthy of a name; we'll call it "cornlage."

No race track punter studies the form as avidly as some farmers check corn trials. These results are further evaluated in their own farm test plot areas. The most promising hybrids and single crosses are ordered early — in fact some corn is already booked for the spring of 1966.

Not only must the seed be ordered early, it has to be planted early for best results. "The corn should be knee high by July 1," according to one oft-quoted maxim. Lawrence Markusse

by PETER LEWINGTON

Field Editor

of Wyoming, Ont., started corn planting in late April and by July 1 it was chest high, despite the unprecedented dry weather.

Bill Abraham, Lambton County agricultural representative, checked corn yields in his county last year and found that the most productive single cross corn had yielded 178 bushels per acre. Perhaps even more startling than the yield was the proportion of grain corn in the silage — the cobs accounted for 60 per cent and the stalks for only 40 per cent by actual weight.

Good yields are the result of high, but wise, investment; Markusse estimates each acre of corn costs \$100 by the time it is ensiled. While the costs of cornlage may appear high they are readily justified. Last year his entire 140 acres of cropland were planted to corn and they yielded an average of 140 bushels of corn when reduced to a 15.5 per cent moisture basis. The entire production was stored as whole plant silage in two 20 ft. by 62 ft. silos and one silo measuring 24 ft. by 84 ft. Five hundred steers are kept on feed all the time; as the first cattle are finished they are replaced by yearlings so that a total of 700 head are actually finished on this 150-acre farm.

Judged in the light of this volume of production the outlay of \$100 per acre begins to appear moderate, not extravagant.

ADDS UREA, LIMESTONE, BREWERS' GRAINS

Having grown high-quality corn Markusse proceeds to transform it into a complete beef finishing ration. Ten lb. of urea and 10 lb. of agricultural grade limestone and 100 lb. of dried brewers' grains are added to each ton of corn silage. Markusse is not wedded to the feeding of urea, but rather to whatever source of protein will make the cheapest feed. Currently, by a comfortable margin, urea is the best buy. The valuable properties of urea as a ruminant protein source have received such wide publicity and acceptance in recent months that a very real danger has been created. Urea could easily be oversold; fed carelessly or in excess it can give rise to toxicity, fatalities and reduced gains.

Urea is both potent and unpalatable; it has a protein equivalent of 262 per cent. Expressed another way, 1 lb. of urea is the source of as much protein as 8 lb. of 30 per cent supplement.

In all other respects urea is deficient; it is nothing more than a currently cheap source of protein. Competitive sources of protein, such as soybean oil meal, also contribute energy and minerals to the ration.

The value of adding limestone to the silage is surrounded by controversy and conflicting feeding trial results. Markusse takes the view that limestone is cheap, does no harm and is quite possibly beneficial.

METERS IN ADDITIVES

Lawrence Markusse has one special advantage in producing a balanced cornlage; a set of scales at a nearby gravel pit enables him to weigh four or five loads daily during silo filling. Knowing the weight of each wagon load of corn silage makes it possible for Markusse to meter the precise weight of additives to the chopped corn as it enters the blower. A motor attached to the silo blower pipe causes the pipe to rotate during filling; this, in effect, mixes the urea, limestone, brewers' grains and corn a second time, while at feeding time the action of the mechanical silo unloader mixes everything yet a third time. The steers are fed the complete ration three times daily and they have access to salt and minerals at all times.

The appearance of the cattle and the economy of gain both point to cornlage achieving even greater significance in those areas where high yields and high quality have become a reality. V

BOX SCORE FOR "CORNLAGES"

- Finish more beef per acre than with any other system.
- Growing, harvesting and feeding can be completely mechanized.
- Far less weather hazard than alternative crops, such as hay.
- It's digestible, palatable and it can be economically upgraded to become a complete feed.
- Cornlage is the cheapest and most prolific source of TDN per acre.
- Cornlage doesn't just happen; it demands top management and bears little resemblance to what we used to think of as corn silage.

UREA — USE WITH CAUTION!

- When adding urea to corn silage meter precisely 0.5 per cent by weight.
- Don't add urea if the corn is still so high in moisture that there is a run-off; leaching could cause dangerous concentrations of urea in the lower portions of a silo.
- Urea is a cheap source of protein, no more, no less.
- Urea gives most economical gains when added to silage with a high grain content.
- Fed carelessly or in excess, urea can mean poorer feed conversion, poisoning or even the loss of cattle.
- Fertilizer grade urea may be used instead of the more refined feed grade — providing that it can be thoroughly mixed with the corn.



He creates a balanced ration for these Western steers by adding 10 lb. of urea, 10 lb. of limestone and 100 lb. of dried brewers' grains to each ton of corn as it goes into silo for mechanized feeding



Jack Perkins records objectives and performance on litter charts posted on farrowing house wall

[Guide photos

Each farrowing period this hog grower draws a chart showing the number of hogs he would like to farrow, the number of piglets he would like per litter and the number of grown pigs he hopes to market, then he tries to reach his objective

by CLIFF FAULKNER
Field Editor

WHEN JACK PERKINS of Wainwright Hog Ranch Ltd. found he was losing one-third of his baby pigs, and that it was costing him \$5 a month to board a sow whether she had any pigs or not, he decided he had better take a close look at his whole operation. He discovered that too many of his sows were freeloaders—they ate but did not produce. In short, not enough pigs per sow were getting to market.

As he was already using top quality breeding stock, Jack judged that this was a management problem. Somewhere along the line his pigs were picking up scours and other diseases which hamper fertility and growth.

"When you use the same pens for many years you get a disease build-up which cuts rate of gain and litter size," said Jack.

Supersanitation

He decided to attack his problem in two ways: (1) A supersanitation program involving an hourly flushing system to keep waste from accumulating on the floors, regular washing of walls and fixtures with disinfectant, and a complete eradication of flies and other insects. (2) A quarterly farrowing program designed to channel all farrowing into four 4-week periods a year which would complement his sanitation efforts by giving him a chance to really clean out all pens.

To evaluate his new program, Jack prepares a chart showing certain objectives he hopes to attain from each farrowing.

"What the chart says," Perkins explained, "is that we hope to farrow so many sows, get so many piglets per litter, have a certain number still alive and thriving at 21 days, at weaning

200 Litters, 1,800 Market Hogs per Year

and at market time. It gives us something to shoot at, and also shows us how our sanitation system is working."

14,000 Gal. Water per Day

Basis of the whole sanitation program is an abundant supply of good, clean water. The Wainwright Hog Ranch uses 14,000 gallons of water a day. This includes domestic water for the Perkins house and the house of Jack's foreman, Joe Baynham, drinking water for the pigs, and water for flushing out barns. There are two wells which automatically fill a 28,000-gallon circular reservoir made of reinforced concrete which is located under a large pumphouse. The pumphouse is equipped with both electric and gasoline pumps in case of a power failure.

Should a fire break out, the pumps at each well and the two units in the pumphouse can all be brought into action to keep the 500-gallon pressure tank full. Outside the building, a red slab covers an opening to the reservoir where the town fire truck can put in a suction hose. To handle things until the truck gets there are two

covered fire hydrants placed at strategic spots in the farmyard. Each hydrant is equipped with 200 feet of hose. The cost of this "insurance" was \$350 for hose, nozzles and valves installed.

\$350 per Farrowing Pen

Wainwright Hog Ranch has two farrowing houses, one an old building that has been used for this purpose for many years and the other a horse barn converted to farrowing at a cost of \$4,200, or \$350 per pen. Pens are constructed on heated concrete islands about a foot off the floor. There are metal grills at both front and rear, one end to take droppings from the sow and the other to drain excess water spilled from the drinking bowl and any coarse sow feed that might fall down where the young pigs can get it. Waste falls into V-gutters located along the base of the islands where it can be hose flushed into deep, narrow gutters at the end of the building.

Spray Cools Feeders

One of the ranch's two feeder barns has an automatic cooling and flushing device which Jack



Valve-controlled pipes release water hourly in automatically flushed barns



Water jet from center pipe sweeps around, pushing manure toward the gutter

has developed and patented. The cooler consists of a series of overhead nozzles that send a fine spray of water playing on the pens and pigs 24 hours a day. This keeps the animals clean and cool, and discourages them from lying in the gutters. At floor level, slowly turning nozzles send strong jets of water sweeping across the floor to push manure into a gutter which runs along the far side. This device comes on every hour and runs for 15 minutes. It was constructed from the steering section of a tractor, a series of washing machine pulleys and a washing machine transmission.

6,000 Gal. per Day Flushing System

Manure from the feeder barns flows to a 16,000-gallon pit. The pit is pumped out twice a day into a lagoon. This flushing system alone uses from 6,000 to 7,000 gallons of water per day.

When animals are moved out of a feeder barn or farrowing house, the premises are thoroughly cleaned and disinfected. All movable sections are removed and the place flushed down with water. Then the walls, rails and permanent fixtures are scrubbed with two disinfectants—one a germ killer and the other an insecticide. In the doorway of every room in every building is a footbath so that germs will not be carried from one building to another.

"Before we started our disinfectant program we had flies on our heated floors the year round," Jack told Country Guide. "Have you seen any flies since you've been here?"

"We had to admit that we had not. A hog barn that is odorless and free of flies is not a thing you find every day.

Quarterly Farrowing

To back up his sanitation drive, Jack started a system of quarterly farrowing. This involves dividing the sow herd into two breeding groups, each of which is bred twice a year. One of the big advantages to this method is that you compress all your farrowing work into four set periods a year, then you are done with it. After each farrowing you can concentrate all your efforts into cleaning up the premises. When you farrow a lot of sows together their offspring reach market weight at about the same time, which saves on

shipping costs because you ship fewer (but bigger) loads.

In the first quarter, Wainwright Hog Ranch farrowed 50 sows in a 6-week period, although most of them had their litters in 3 weeks. As the system takes hold it is hoped to be able to complete all farrowing in four. Each sow is given two chances to breed. If she fails she is shipped off to market. Boars are locked up during "off" periods when no breeding is done.

Litter Adoption

Along with quarterly farrowing, Jack has a litter "adoption" system. A litter produced by a sow that is a poor milker is removed from the natural mother and put on a sow known to be a good milker after the latter's own piglets have been fed. It is possible to do this because all new litters at the Perkins' farm are kept in separate boxes for 2 days (or longer if the piglets are weak or sick) after birth. They are lifted out for each feeding period.

"By putting the young pigs in a box you get to handle each one," Jack explained. "This gives you a chance to see if scours are starting so you can treat them early. It also enables you to keep the area around each sow cooler. We find that when the floors are too warm the young pigs tend to lie around the sow and often get trampled. You can cut losses quite a bit by being extra careful during the first 24 hours."

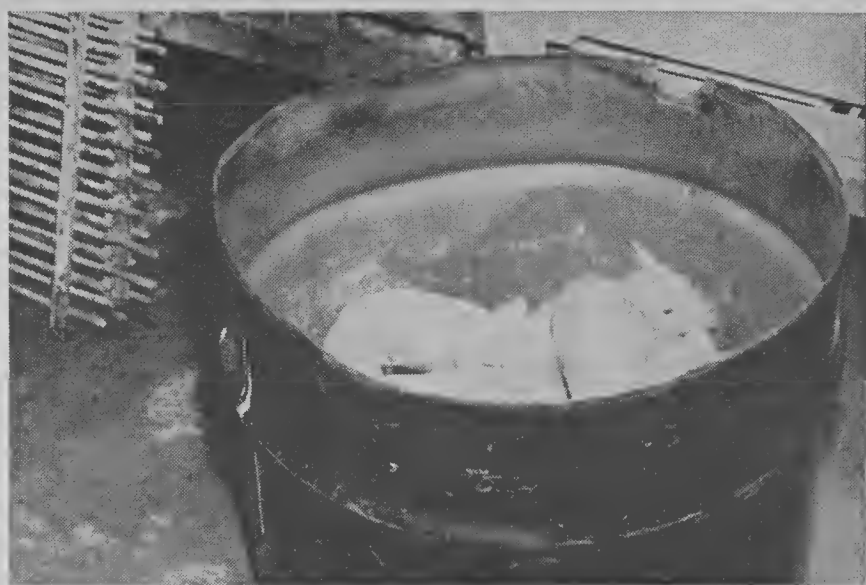
Vitamins A, D and E are injected in the first 24 hours of birth. But in spite of this, Perkins feels the piglets are not benefiting from these injections as they should.

Novel Farrowing Stalls

Farrowing stalls contain several features designed to aid or protect the young ones. There are removable metal tail guards which clamp on the sides of each stall and can be adjusted to the size of the sow. An adjustable metal grill on top keeps the sow's back straight and prevents her from trying to climb out. The regular grill (slats) on the rear floor can be removed and replaced by a finer mesh when the piglets are 1 to 4 days old. Water bowls are only 7 inches off the floor so young pigs can drink.

31-Day Weaning

The young pigs are weaned at 31 days if they have attained a weight



Newly born litters are kept in individual drums or boxes. An interchangeable grill of the type Perkins uses on farrowing stall floors is shown at left

of 12 lb. To compensate for loss of animal heat when the sows are removed, heat lamps are installed. Young ones remain in the farrowing stalls until they reach a weight of 40 lb. In future, they will all be fed on the floor. This will help to keep the concrete cleaner for few animals will leave droppings where they feed. Needless to say, accurate records are kept of every stage of growth.

Special care is taken with the rations prepared for young pigs. The basic feed used for a pig starter is wheat with some rolled oats mixed in. As the pigs get larger, more oats and then barley are added. The finishing ration has no wheat in it at all. Wheat for the pig starter is cleaned at the Wainwright Seed Cleaning Plant.

"You have to have low fiber content in a starter ration," Jack explained. "We find we run into enteritis troubles if we don't keep the fiber down."

Farm Feed Plant

Feed is prepared in the farm's own 20,000-bushel feed plant which contains 8 storage bins ranging in capacity from 600 to 7,000 bushels. There is also storage for 12 tons of concentrate—a special mix prepared in Edmonton for Wainwright Hog Ranch. All grain flowing from the bins to the hammermill passes through magnets which remove any metal that has fallen in. On a board in the plant are listed five rations

for growing pigs and three sow rations, plus a booster ration for sows.

1½ Cents per lb. Feed Grain

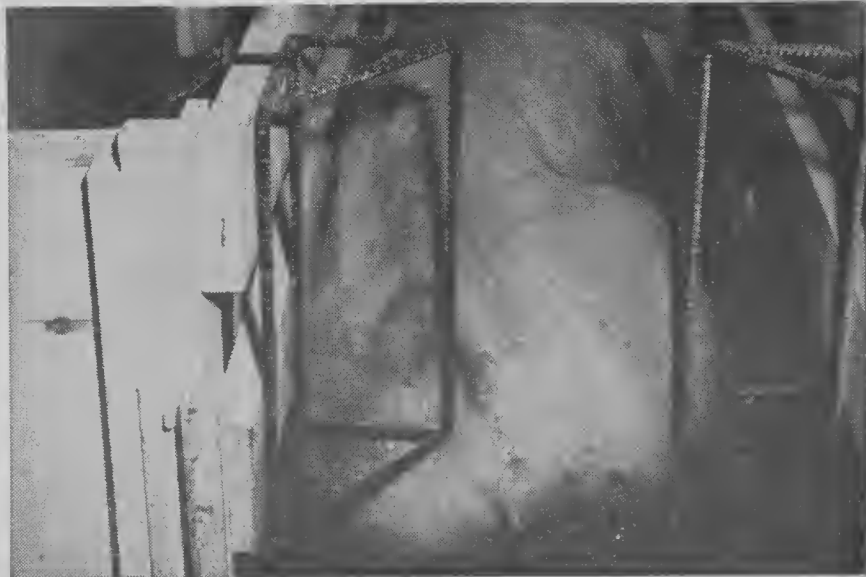
The plant also contains a truck weigh scale which enables the Perkinses to get a very accurate picture of what their 480 acres produce. Jack does not do any cropping. This is all handled by Dave Rattray Jr., Jack's brother-in-law. Wainwright Hog Ranch Ltd. pays all expenses, plus a fixed amount for each farm operation. Each load of grain harvested is checked at the weigh scale. Jack figures his total cropping expenses at \$22 an acre, or 1½ cents to 2 cents for every pound of feed grain his land gives him.

The Perkins farm used to raise hay, pasture and cattle. Now just about all the land is under continuous grain production. Jack does not even pasture his sows any more. The breeding herd varies from 110 to 140 sows. He figures on marketing from 1,600 to 1,800 pigs a year from 200 litters. In his top production year he shipped 2,700. Labor force at the Wainwright Hog Ranch consists of Jack, his foreman and two permanent helpers.

As at most hog ranches, casual visitors are a problem. Jack asks anyone intending to visit him to phone for an appointment. This way, he will have a chance to arrange his work so that he will have time to show them around. V



Manure washes from V-gutter of concrete island farrowing pens to deep gutter



Removable metal rear guards in sow stall of farrowing pen keep sow in place

Aerial Photos Mean Farm Profits

A new extension program, relying on aerial photos to show what is happening to the crop, is leading to higher farm profits

by **PETER LEWINGTON**
Field Editor



This photo, taken June 12, 1964, clearly shows where haying has started. Date of cutting is an excellent yardstick of hay quality, and will influence the winter feeding program

IT'S AN OLD CLICHE that the camera doesn't lie and, as anyone who has done much flying knows, there are no secrets from the air. Put these two ideas together, as extension people in New York State are doing, and you come up with a new concept in agricultural extension. Aerial photography is being used there as a new and effective extension tool.

Dr. Bob Lucey, who is in charge of the research and extension project in northern New York State, says farmers are shocked when they first see the aerial photographs. These are the sort of things that show up:

- Effects of poor drainage.
- Timeliness of farm work.
- Layout of fields—most are under 10 acres and hard to work with modern equipment.

For the pilot project in aerial extension, an area in Jefferson County within 10 miles of the U.S.-Canada border was selected. It is an area of dairy farms with the milk going to cheese, manufacturing and fluid markets.

The northern section has some rock outcrops, and the soils, while potentially productive, are wet and hard to work. The southern section has naturally drained glacial soils which are easier to farm and these fringe upon some of the best land in the state.

"Only 15 miles separate these farmers," says Dr. Madison Wright of Cornell's Agronomy Department, "and yet they live in entirely different worlds; the wide differences in farming, even within 5 miles, means that one extension program will not be adequate for an entire area."

In this extension program, the same route is flown and photographed four times during the summer. On June 23, in one year, one area had 52 per cent of the hay cut while even as late as August 15 another area still had only 77 per cent cut. Even a casual glance at the photographs shows a tremendous amount of detail; when the photographs are viewed through a pocket stereo-

scope, many details become apparent in a third dimension. The photographs on the June flight will show: the irregular shape of fields and the areas which have been sown twice; progress in hay making; the fields sown to corn; weed problems; and poorly drained areas. The August flight will show herbicide damage in succeeding crops; the depressions where alfalfa has been killed out; the portions of fields which have been worked while still too wet; and the unpalatable pasture areas which have been fouled with droppings and not harrowed.

The photographs are taken from a height of 6,000 feet and they are produced to the scale of 1 inch to 1,000 feet. The photographs accentuate the difference between levels of farming. Unproductive 15-year-old stands of timothy and oats losing a futile battle with twitch grass contrast with the alternatives of 25 tons of quality corn silage to the acre and three cuttings of legume hay.

These tremendous differences are not entirely due to environment. Dr. Wright observes, "Some of our most destitute farmers are on soils which are potentially the most productive."

"With aerial photography," says Bob Lucey, "we get right to the heart of the problem. The facts are no longer in dispute."

Armed with the evidence of aerial photography, ground visits by extension workers begin: 4,000-5,000 fields will be visited during the year, all at least twice and some up to 10 times. All the farmers who are interested are enrolled in a Farm Business Management program. Profit-making practices are discussed at winter meetings, and in county newsletters, at field days and during tours of demonstration and research fields.

Intensive soil management and cropping programs are tried on a limited number of farms. Where there is little risk involved in changing to such programs, the farmer pays the entire cost of the change. If higher risks are involved half

of the cost may be paid under the provisions of Agricultural Stabilization and Conservation Services.

"We put as little money into farms as possible," says Dr. Lucey. "We want to avoid any possible reaction that what we encourage is only possible with unlimited university or government funds. We want to improve the production and profit on a farm in such a way that the neighbors will feel that they too can benefit from similar changes."

Sound practices are clearly demonstrated: the benefits of weed control, drainage, recommended varieties and crops, fertilization and economic layout of fields all show up, and district farmers are quick to pick up these practices. In 1962, one dairyman had an average production of 8,500 pounds of milk from 40 cows for total sales of 342,000 pounds. By 1964 he had cut back to 36 cows, but their average production had jumped to 10,800 pounds for sales of 389,000 pounds. Another farmer was convinced of the merits of sorghum silage until Cornell paid for 1½ acres of corn in the middle of his sorghum field.

William Pauling, Jefferson County agent, told me, "This whole approach to extension has made a lot of mileage. There is no reason why these soils can't be made more productive. The traditional way of farming holds little expectation of a better way of life."

The New York State extension program, which is sparked by aerial photography, is now in its fourth year. Last year the first real impact was made with the cropping program. Dr. Lucey summarizes the progress this way: "The cropping costs have doubled but the labor income is up and the major benefits are yet to come. The benefits on each farm, where the successful changes have been made, are now spilling over and influencing the whole community. The good cultural practices are paying off; we have still been able to grow good crops despite below-average rainfall in the past 3 years."

Where Farm Flocks Are Expanding

by **DON BARON**

Editor



Flocks are ranging in size from a few thousand birds up to the 24,000-bird flock of Clarence Siemens. Most handlers keep their birds in cages

In this area, farm flocks add up to a big poultry business . . .

DON'T WRITE OFF the poultry industry yet. Travel to Rosenort, Man., and you'll find a farm community on the move. The farm population is increasing. The town itself is growing rapidly. Young fellows are staying at home on the farm. And the basis of much of this growth is the farm flock.

The flocks are bigger than they used to be. There are 25 or 30 flocks totaling 90,000 hens that weren't there 5 years ago. There are another 90,000 pullets being raised.

Manitoba's poultry commissioner, Ross Cameron, explains that the area has moved ahead quietly but rapidly. It is an area of good land and of good farmers. Many of the people are of Mennonite background, and are accustomed to handling cattle, hogs and poultry. In recent years, a feed mill was set up in town and farmers decided to specialize in poultry.

FOUND A MARKET

Meanwhile, egg merchandisers in Winnipeg were seeking out reliable sources of quality eggs. They now come into the area 3 or 4 times a week, picking up eggs unwashed and ungraded but paying within 2 cents of Winnipeg prices for them. This way, producers and handlers both benefit from the savings that can be made from central washing, grading and cartoning of eggs. It is a big step forward in narrowing the gap between producer and retail prices.

The situation provides evidence that the farm flock, although in a much larger size than ever

before, may be coming back. Cameron suggests that producers around Rosenort are so efficient that retailers would be unable to do any better by setting up their own flocks. Commercial firms, he says, would have a lot of trouble competing with producers in this area.

A spokesman for Safeway Stores, one of the biggest buyers of eggs from the area, points out that his firm is putting more and more emphasis on egg quality. It wants to be able to sell eggs day after day and bring satisfied customers back for more.

To help build this market, he reports that Safeway works closely with producers, encouraging them to keep the nests clean, to gather frequently, to apply an oil spray to the eggs, and to keep them under refrigeration. "For our part," he explains, "we assure our producers there will always be a market for all the eggs they produce. Because centralized grading and washing helps us to cut costs, we can pass the benefits along to producers, in the form of premium prices.

He notes another benefit too. The high-quality eggs are making it possible to find new markets and thus increase the opportunities for expansion by present producers or those who want to move into the business.

A REPUTATION FOR QUALITY

Another buyer points out that a few years ago he could hardly sell a Manitoba egg. "Buyers didn't want them because they were produced in small flocks. They were handled poorly and quality was bad. However," he says, "a Manitoba egg is recognized as a quality egg today. People are beginning to demand them. As a result, we can now ship east to Toronto or west to Vancouver if shortages develop in either place. From our location in the center of Canada, we can ship to markets right across the country."

Biggest producer in the district is Clarence Siemens, who has 24,000 laying hens, but who still insists he is a farmer despite his giant flock. He grows wheat and oats on 600 acres of land and points out that both the farming and poultry enterprises are important to him. In recent months, when egg prices were low, grain sales took some of the sting out of egg losses.

In fact, Siemens figures that he or any farmer can produce eggs more efficiently than any commercial firm. Five years ago, he had 9,000 turkeys. When the turkey business went sour, he converted his building to laying hens by installing cages. He then built another 2-storey building and finally a long single-storey cage-

layer unit, housing 14,000 hens, to reach his present capacity.

LABOR SHORTAGE LIMITS SIZE

He says his biggest problem is to get reliable men. He requires two at all times but has found from bitter experience that mistakes made by a careless employee can be costly. "If a man forgets to keep the water trough full, it can knock the birds off production for a week or two," he explains. He recalls wryly, "I have paid these costs and it hurts."

Of course his operation is set to operate efficiently. He buys all of his feed totally prepared and has it delivered in bulk. He feeds the cage birds from the feed cart with a mechanical dispenser. Eggs are gathered regularly and moved to the cooler. They are picked up from the farm three times a week. Droppings boards under the cages are cleaned every week. A mechanical gutter cleaner moves droppings into the tank-type manure spreader which has a flail unloader.

Siemens, unlike some egg producers in the district, grows many of his own replacement pullets. He has a brooder house in one building with accommodation to raise 10 or 12 thousand pullets.

After 5 years in the egg business, Siemens will list several points he figures are important to any producer. First of all, he says, because of the small profit margin, you must have a big enough flock. But on the other hand, don't get too big — you won't be able to find the workers to handle the flock. At the first sign of disease, he warns, take a sick bird over to the university fast for a diagnosis. If treatment is required, it must start promptly. Use medication in the feed whenever necessary. Finally, in Siemens' view, a poultry enterprise should be tied in with a farm. This provides a change of pace to the operator and a little insurance as well. If one enterprise isn't paying, the chances are that the other one will be.

Actually his enterprise looks pretty efficient. Although he says there were no profits for several months during the past season, the price had risen to 30 cents or so when we visited him. He said at that price his enterprise pays its way.

The local feed dealer, Peter Siemens, who is a brother of Clarence, is even more optimistic than Clarence about the future of this farm community. "To move ahead in any industry," he says, "you must be able to do a job more efficiently than someone else. We know that we can produce eggs efficiently in this community. We have fertile land here. We can grow good crops. Our young people are ambitious and aggressive. That is why we are building a prosperous and expanding farm community."



Siemens feeds his hens with a mechanical feeder



[Guide photos]
Ben Schmitke and his all-in-one barn

This 160' by 80' pole frame barn incorporates 66 free stalls, a milking parlor, a liquid manure handling system, and has storage for 300 tons of hay and 6,000 gallons of stillage

All-in-One Dairy Barn

by **CLIFF FAULKNER**
Field Editor

ONE WAY TO BEAT that old nemesis — the weather — is to move most of your farming operations inside. This is exactly what Ben and Olive Schmitke, who have a dairy farm near Black Diamond, Alta., decided to do when they got tired of bucking rain, wind and the cold going from barn to hay shed to milking house. They put their loafing barn, bedding storage, feed storage, feed mangers, water, manure dump pit, bull pen, holding pen, milking parlor and bulk tank room all under one roof. You might think they wound up with something like that indoor ball park in Houston, Texas, but such is not the case.

On their 308-acre Benhur Dairy Farm, the Schmitkes keep their 68 Holsteins including the year-around milking herd of about 55 cows. They grow all the hay and pasture required on their land, and often grow most of their feed grain too. They expect the cows to average over 45 pounds of milk per day during the summer. During the cold winter just past, production slumped to about 37 pounds.

The Schmitke all-in-one barn measures 160 ft. by 80 ft. It rises from a 20-ft. high wall on the west to a peak of about 26 feet, then slopes down to an 8-foot wall on the east. The west side of the building contains bedding storage (wood shavings), a 300-ton capacity hay storage area and a 6,000-gallon stillage tank. Hay storage occupies a space about 32 ft. by 92 ft. The hay is blown in through four 2 ft. by 4 ft. openings which are located in the west wall about 12 ft. off the ground. Stillage is pumped from delivery trucks which hook up to an inlet pipe outside.

Beyond the hay storage area, in the barn's center, is a 92-ft. continuous feed trough and hay manger, with a 12-ft. water trough located at the south end. At feeding time, stillage is run into the trough, then a layer of straw is put on top of it. This is followed by another layer of high quality alfalfa hay. The Schmitkes usually buy wheat straw although they find that any straw can be successfully fed with stillage.

"We have to feed half straw and half hay," Ben explained, "because the ration is too rich in protein when just hay and stillage are used. You need something with a heavy fiber content when you feed stillage."

Across a 12-ft. alley from the feed trough is a block of about 50 free stalls arranged in two rows. Each stall measures 4 ft. by 7 ft. There is a 9 ft. wide access alley and then another row of 16 stalls along the east wall. The south one-quarter of the barn area contains the holding pen, bull pen, wood shaving storage, milking parlor and bulk tank rooms. All but the hay storage section is floored with concrete. The barn itself is of pole frame construction with plywood siding and asphalt shingles.

Ben can clean the barn in 15 minutes without getting off his tractor. The manure is pushed into a sloping dump pit in the northeast corner of the building where it can be washed into a 20 ft. by 40 ft. by 8 ft. deep concrete tank. This is pumped out periodically and spread on the land. When it is too cold for the cows to go outside, Ben cleans the holding pen first then moves the cows in there while he cleans the rest of the barn.

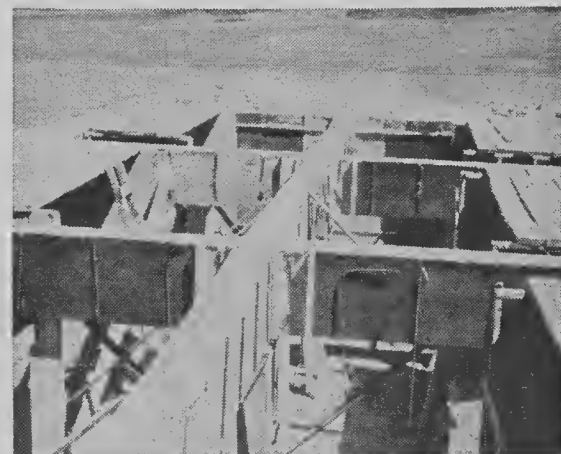
During the extremely cold weather of last winter there was only a slight freezing of the manure at the north end. The cows stayed clean and comfortable during the cold and did not even develop a winter coat. For ventilation there is an electrically powered fan which draws in air at floor level and exhausts it through the roof via a 3 ft. by 3 ft. duct. The fan is located in the main block of stalls.

At milking time, the cows are fed a ration of straight rolled oats, about 3 lb. per cow. This is stored in a big wooden hopper on top of the milking parlor so that it can flow by gravity to the milking stalls.

"They don't really need the oats when they are fed stillage," Olive Schmitke said, "but you have to give them something to get them into the milking parlor."

Three thousand gallons of hot stillage is delivered from a Calgary distillery three times a week. In addition to the big tank in the barn, there is a smaller tank beside a row of outdoor feed troughs that only has to be filled once a week. This stillage is used for dry cows and young stock.

The milking parlor and bulk storage room is of cinder block construction. There is a high pressure hose line for washing the premises and low pressure spray nozzles with warm water to wash down the cows. Water is pumped with a submersible pump which is located in the bottom of a 180-ft. well. This unit pushes the water instead of sucking it and can build up to full 60 p.s.i. pressure in about 3 minutes. ✓



New manure tank will be 20' by 40' by 8' deep



Manure is pushed into pit from northeast ramp

Experiments in Britain indicate that intensive management will result in higher profits

Intensive Sheep Management

by NORMAN L. GOODLAND

THERE HAS BEEN a revival of sheep in the British Isles. The sheep population is back to prewar numbers. The largest increase has occurred in the grassland districts, but even in the arable areas there is some increase.

P. G. Jones, director of Bridget's Experimental Husbandry Farm, near Winchester in Hampshire, attributes the increase to the fact that so many farmers are going out of dairying and looking for an alternative livestock enterprise.

"If this is so," he says, "then sheep must be as profitable as the dairy herd. It is doubtful whether sheep kept on the old extensive method can be this profitable."

For this reason, the Experimental Farm began an experiment 3 years ago to see about keeping sheep under intensive conditions. Sufficient work has been done to reach some conclusions and to indicate the trend and the hopes.

British farmers are showing great interest in this experimental work.

Not only this, overseas visitors from America, Australia, New Zealand, and the Continent all come to see this work.

The basis of the experiment lies in the setting up of three different self-contained "farms." The flocks are kept entirely within their own "farm" and each farm also has to supply hay and silage to feed back to the sheep during the winter.

"Obviously," says Mr. Jones, "if you are going to increase production from your grass, it is a question of levels of fertilizer applied. Phosphates and potash are also taken care of and adequate dressings given. The difference between the three 'farms' is that one, which we call the 'low' farm gets only 50 units of nitrogen per acre per year; the 'medium' gets 150 units, and the 'high' gets 250 units."

The object of this experiment is, therefore, to find out if heavier nitrogen dressings can increase the rate of stock per acre and the profitability of the enterprise. At the same time a study is being made of management techniques and the profitability of fat lamb production from ewes, kept at a high stocking rate on grass.

Thus all three "farms" receive different rates of nitrogen fertilizer. The numbers of ewes on each farm are adjusted, if necessary, before the time of going to ram each year.

The "low" farm, that is to say the one based on 50 units of nitrogen per acre per year, carried three ewes per acre in 1963, and three per acre in 1964. The "medium" farm (150 units of nitrogen per unit per year) carried four ewes per acre in 1963, and four per acre in 1964. The "high" farm (250 units of nitrogen per acre per year) carried six ewes per acre in 1963, but five per acre in 1964.

The layout and management is basically as follows: Each farm consists of a forward creep area for ewe

and lamb summer grazing. A similar acreage acts as a reserve area to provide silage, additional grazing, and ewe-wintering ground. Each forward creep area is divided into six paddocks. These are arranged in two ranks of three, so that the sheep can graze round the paddocks continuously, while the lambs range forward through the creeps ahead of the ewes.

The "farms" are managed independently of each other. Timing of sheep movements, cutting up of excess grass for hay, etc., are carried out on each "farm" according to its own needs—but the management pattern for all farms is similar.

After lambing, the sheep graze the reserve areas until there is sufficient growth for grazing on the creep paddocks. The ewes spend 4 days in each paddock, giving a 20-day recovery period for the grass between circuits. The reserve areas are shut up for a silage cut early enough to give an aftermath by weaning time in midsummer. At weaning, lambs are put on this growth.

Lambs are sold at 70 to 80 lb. live weight. During the rest of the year the ewes and lambs graze the whole of each farm, the ewes being flushed on the reserve areas. When all forage has been grazed down by the ewes in midwinter, the flock is confined in a paddock on each reserve area and fed silage and hay made on their own farm. They remain here until lambing and are steamed up with 25 lb. of concentrates per ewe.

After lambing, further concentrates are fed. The ewes and lambs are routine dosed against stomach worms, including nematodirous, during the lamb fattening period. This is regarded as necessary because the same grass is grazed by each flock, each spring.

Despite early problems that can be attributed to lack of experience and to bad weather, more even crops of thriving lambs are now being obtained on all "farms." Every indication shows that this will result in increased revenue and higher gross margins—and that profits do increase with increasing intensity of stocking. This suggests that where sheep form an enterprise on a mixed farm, intensive management should increase profit.

Further points of management of the flock are as follows: After weaning, the ewes are kept on the best

grass available to maintain body condition. They are flushed on good grass, or occasionally kale, for 3 or 4 weeks before going to ram. The rams are turned in about mid-autumn. Just before lambing, the in-lamb ewes are penned at 50 ewes to the acre and fed silage and some hay. They are steamed up with 25 lb. of concentrates. Rolled barley and calcine magnesite are fed for a period after lambing. No supplementary feed is given to the lambs. Castration and tailing is by rubber rings. A full dosing and inoculation program against pulpy kidney, lamb dysentery and tetanus is carried out.

Points from the results of sheep trials are as follows: One trial was to determine the effect of breeding ewe lambs on their prolificacy, milking capacity and longevity. It was concluded at the end of 5 years that taking an extra lamb crop from ewes by sending them to ram as lambs does not adversely affect their subsequent performance.

The experiment at Bridget's will continue until it proves successful, or until disease breaks it down. A careful watch is naturally being kept for the build-up of disease, but this has not occurred so far. Mr. Jones says that the experimental side of the intensive management program has already increased the profitability of sheep and the next step is to apply it to the flock as a whole. V

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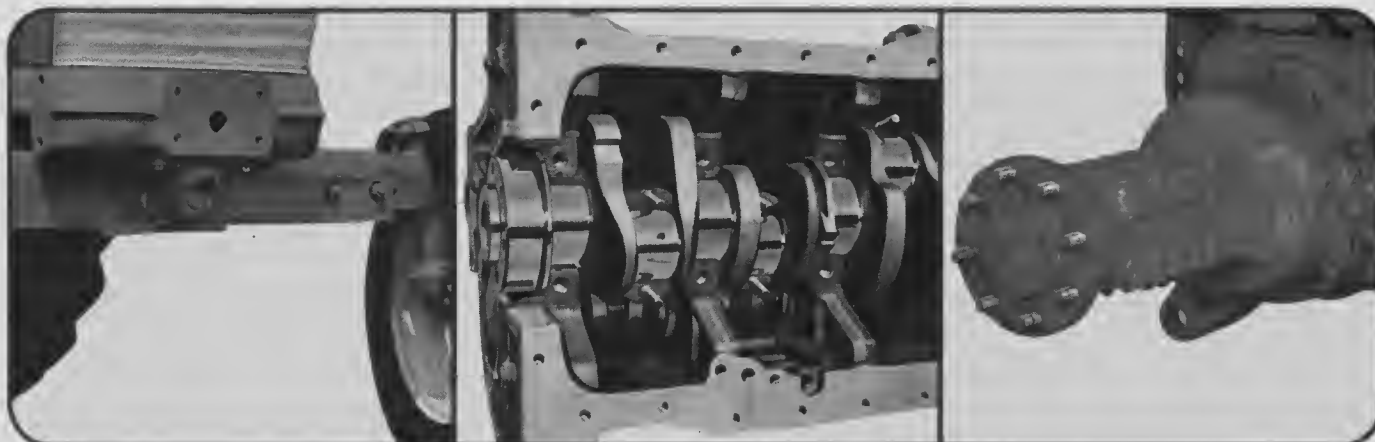


J. R. Smith

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Some eyes are always watching and waiting for a feed . . .

Animated Appetites

by **PETER LEWINGTON**

Field Editor



. . . while others can't see a need for a feed



Appetites are usually keen for that palatable haylage



Some fellows find eating a serious business that has to be looked into

NUMBER 9 IN A SERIES

Let's chat
with
John Blakely

about fences
and uneven
ground

I have seen many good strong fences destroyed because of lack of attention to one detail of construction. Where the fence passes over a sharp depression in the land, such as a ditch, is where trouble can occur. For instance, if a cow can get her head under the bottom wire you can be sure she'll do just that. Before you know it, she'll have your fence pushed into bad shape.

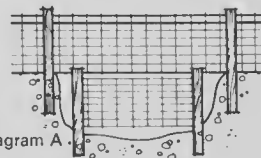


Diagram A

This is a case where an ounce of prevention is worth a pound of cure. If the depression is both wide and deep you can use two or more posts and woven wire as shown in Diagram A. In cases where the

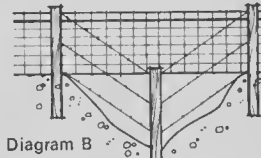


Diagram B

depression is shallow or narrow, or both, a single post and barbed wire, as shown in Diagram B, may be the only answer. If it is a stream or a water course your fence must cross, then a flood gate made from a series of boards held with Number 9 wire as shown in Diagram C will probably take care of your need.

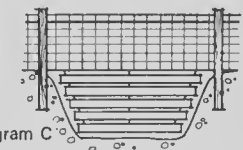
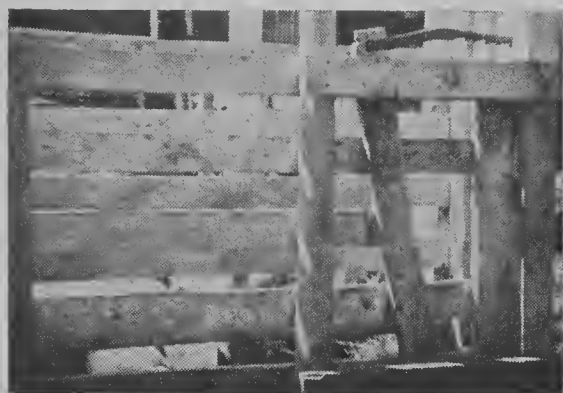


Diagram C

Your Stelco Fence Dealer has the know how and the materials that will help you build better fences. See him for Frost Brand farm and specialty fencing, barbed wire, posts, gates — whatever your fencing needs may be.



THE STEEL COMPANY
OF CANADA, LIMITED



Animal's head goes through a side opening in squeeze. The upright pivots at bottom, can be locked shut at top

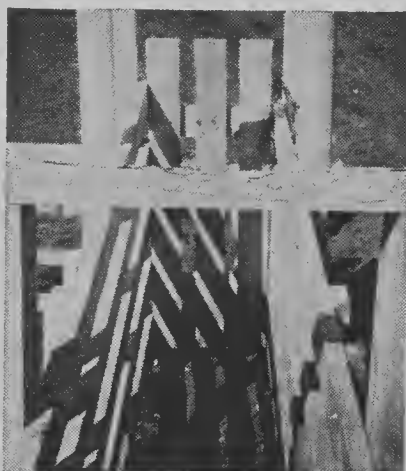
Side-Opening Cattle Squeeze

THIS SIMPLE and inexpensive cattle squeeze on the E. G. Shaw farm at Cardale, Man., was built from materials that were right at hand. It is built to last, of 6" by 6" uprights, and closely spaced 2" by 6" rough lumber. A swinging gate at the front can be locked shut when the animal is in place, because the animal's head goes through a side opening in the squeeze. A sliding 2" by 6" board, pivoted at the bottom, is closed on the animal's head to hold it in place.

Shaw finds that once the animal is locked in, it's an easy job to do ear tattoos, implantations and other work. The gate at the front can be opened exposing the animal's shoulder and foreflank for inoculation. Animals can be sprayed or dusted from above for lice, warbles, or other pests.

The squeeze is built at the side

of a narrow corral lane. A gate can be swung into place to direct animals into the 24" wide squeeze. — E. Oliver



Squeeze, with hinged gate at front, allows adequate space for spraying

Steers Wintered Well Show More Profit

STEERS WINTERED to gain 1.5 lb. per day at Melfort, Sask., showed \$14 per head more profit at the end of the following grazing season than steers roughed through at 0.5 lb. per day gain.

During the past 2 years, three groups of 460 lb. steer calves have been winter-fed to gain at rates of 0.5, 1.0 and 1.5 lb. per head per day. The ration was all ground and contained 80 per cent hay, 16 per cent grain, 3 per cent linseed oil meal and 1 per cent mineral, vitamin and antibiotic supplement. The amount fed was controlled to give the desired gain.

The steers that were roughed through the winter lost an average of 5 lb. when first put on pasture and recovered it in 2 days. Those

which gained at a pound and a half per day lost 22 lb. and required a week to regain the loss. However Dr. S. Beacon, nutritionist at the Canada Department of Agriculture Experimental Farm at Melfort, reported that total gain for the 2 periods was 434 lb. for the roughed steers, 493 lb. for the middle group and 536 lb. for the group fed to 1.5 lb. daily gain during the winter. He said that after subtracting winter feeding costs the returns were \$147.07 for the group wintered to gain 0.5 lb. per day, \$155.51 for the groups wintered to gain 1 lb. per day, and \$162.25 for the steers wintered to gain 1.5 lb. per day.

At the end of the winter feeding period the feed required per lb. of gain averaged 19.7 lb. for the low gain group, 12 lb. for the middle group and 9.8 lb. for the top gaining group.

When the over-wintering period is long in relation to the grazing period, the extra pasture gains obtained by roughing through the winter cannot be expected to overcome the cost of winter gains. It is sounder to feed for greater and cheaper winter gains in order to achieve good market weight and grade at the end of the grazing season, even though low-cost pasture gains may be less.



Watch for IBR

IBR or Infectious Bovine Rhinotracheitis is a recent and very unwelcome immigrant to Canada. It is a highly infectious disease which is caused by a virus and affects the upper respiratory tract. It tends to strike where there are heavy concentrations of cattle and it is being found in both beef and dairy herds.

Dr. Bob Curtis of Ontario Veterinary College warns farmers to be on the alert for these warning signals:

- Saliva drooling from infected animals.
- A harsh, dry barking or explosive cough.
- Temperatures rising to the 106-108°F. range.

According to Dr. Curtis, the above are reliably constant signs that IBR has infected cattle. Other signs may vary with individual animals. Conjunctivitis, which may be confused with pinkeye, may cause either or both eyes to stream.

The losses caused by IBR are primarily a much reduced milk production and a poor rate of gain in fed cattle. Ninety per cent of the animals infected will recover within 10-14 days, without treatment. The remaining 10 per cent go down with secondary infections, such as pneumonia. Nasal swabs may be taken and sent to a veterinary laboratory for positive diagnosis. Without prompt and correct treatment losses will occur in livestock hit by these secondary infections.

Sulfamethazine may be used as a treatment in severe cases of IBR.

A modified live virus vaccine is available but there is some doubt as to its efficacy. Says Curtis, "There have been outbreaks in vaccinated herds but I believe that vaccination is warranted in feedlots where there is a steady turn over; however, do not vaccinate pregnant cows — it may cause abortion." — P.L.

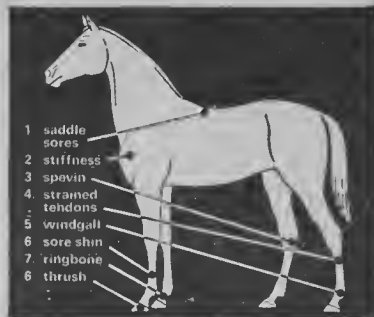
Lambs Grow Too Fast on Pasture

LAMB PRODUCERS are losing money by marketing lambs which are in an under-finished condition.

Lush pastures which are high in protein but low in carbohydrates are responsible, according to A. J. Charnetski, livestock supervisor for the Alberta Department of Agriculture. The lambs grow so fast that they reach market weights before putting on the required finish for a top quality carcass.

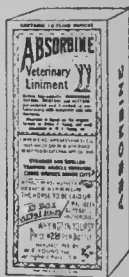
He suggests that producers should put their lambs into a feedlot at 70 to 80 lb. weight. The ration should consist of oats at the beginning and should be gradually changed to a mainly barley ration.

Producers are advised to vaccinate lambs against pulpy kidney and to deworm any lambs showing evidence of worms.



Treat them with ABSORBINE

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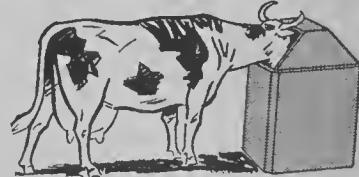
Notice is hereby given that the Board of Directors has declared a dividend at the rate of 5% on the paid-up par value of Class "A" (Preferred) Shares (par value \$20.00 each).

This dividend will be paid on or about September 1st, 1965, to holders of such shares of record at the close of business on Saturday, July 31st, 1965.

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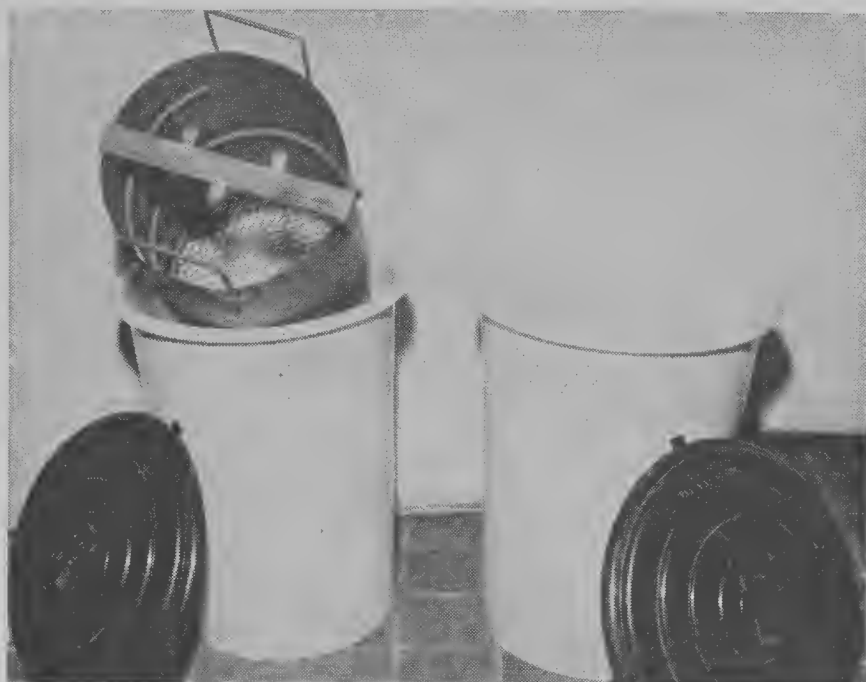
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You can get this immersion cleaning equipment for less than \$40. For more information, write Alberta Department of Agriculture Dairy Branch, Edmonton

It's Time to Look at Immersion Cleaning

Food and Drug Directorate is now implementing regulations regarding quality of milk for manufacturing. Here is how to comply

ONE OF THE beauties of a pipeline milking system is the automatic circulation cleaning system that goes along with it. It provides an easy way to keep the milking utensils clean, thus controlling bacteria.

If you don't have such a system, but you still want the benefits of automatic cleaning of dairy utensils and of your bucket-type milking machines, take a look at immersion cleaning. It is a system that has been called the poor man's automation for the cleaning of milking utensils.

It's a system in which hard-to-clean surfaces are kept immersed between milkings in a 4 to 5 per cent lye solution plus EDTA. The solution is made up once a month. The milking machine clusters are dismantled and brushed once a month as well.

This program takes on new meaning with implementation by the Federal Food and Drug Directorate of regulations passed in 1963 which called for higher quality standards for raw milk going into

manufacturing. The regulations prohibit the sale of such milk if the bacteria content is too high (over 3 million bacteria per ml.) or if the sediment is too high (2 milligrams of sediment per 16 fluid oz.). They mean that any dairy farmer or dairy too can be prosecuted if they offer for sale, or sell, milk that doesn't meet these standards.

It's the standards dealing with bacteria that can cause the most trouble. While mastitis in the herd can be a factor in high bacteria content, usual cause is poorly cleaned and sterilized dairy utensils. It is the interior surfaces of rubber milking inflations and rubber milk tubes that usually cause the trouble.

Here is how immersion cleaning works. The solution sterilizes the equipment, dissolves protein and turns fat into soap. Therefore it keeps equipment sterile and free from film and milk stone. The procedure also preserves the rubber, giving it a longer life.

To begin an immersion cleaning program, you can have a sheet metal worker make part of the equipment from the working diagrams which are available from the Dairy Branch, Department of Agriculture, Office Building 10302-107th St., Edmonton, Alta. If you write for this information, it will be mailed to you immediately. Plastic bins of the right size and price may be available locally.

The alternative is to purchase complete equipment. It is available from the firm of sheet metal workers, Lyon and Lee, for a cost of

\$39.69, f.o.b., Ponoka, Alta. People who have made their own equipment say it cost them almost this price anyway.

The only satisfactory chemicals for cleaning are the lye and EDTA which are sold under the trade name Gillex in 5-lb. tins sufficient for 1 month's use. Dairy suppliers should be able to get this product. Price is about \$2.25 per tin. Another product which dairy farmers have tried is sodium hexameta phosphate, (which is called Calgon) added to lye, but lye is incompatible with it.

It is essential to include EDTA in the cleaning solution. It conditions hard water and prevents the formation of film on the utensils.

One precaution! Before starting an immersion cleaning program, either buy new rubber parts or boil the old rubber in 1 per cent lye for 30 minutes and brush afterwards in clean water. The use of old fat-impregnated rubber will cause the liners and rubber tubes to become slippery on the outside and to fall apart during milking. Synthetic liners are suitable.

Immersion cleaning, then, will probably give you milk of good bacteriological quality as well as saving you money in the purchase of detergents and rubber parts. It will also save you time because preparing the equipment for immersion takes between 2½ and 3 minutes before milking and 2½ to 3 minutes after milking.—L. F. L. Clegg, Professor and Head, Department of Dairy Food Science, University of Alberta. V

Poultry

Hydraulic Litter Bug

CYRIL SHARPE, Wellington County, Ont., poultryman, has licked the biggest drawback to a multi-deck laying house. Says Sharpe, "I never enjoyed the job of cleaning out those houses and I've never had a man who did either; now with our self-propelled scraper one man can clean

2,000 square feet of pens in an hour."

Sharpe, who has been in poultry for 30 years, is not only committed to litter pens but he has reservations about changing to cages; in any event, with 200 acres of land suitable for corn growing, he can make

good use of the litter. Sharpe has 20,000 birds in production and 7,000 pullets in the growing pens. The original idea for automating the job of removing litter came from studying standard fork-lift trucks; however, the smallest model was far too big for his needs—and so the custom built "litter bug" was born.

The litter bug incorporates these features:

- An A-frame, with dual wheels in the front and a castor wheel at the rear.
- Motive power is supplied by a 9 horsepower gasoline engine, which is mounted in the middle of the A-frame. The operator's seat is above the engine.

- A hydraulic motor, similar to those used in aircraft gun turrets, provides the power to each set of dual wheels.

- A bucket capable of holding 300 pounds is raised, lowered and tipped by hydraulic controls.

Peter Southwell, power specialist at the Guelph school of agricultural engineering, advised Cyril Sharpe on the hydraulic system. During 1 year of use, it has been trouble free except for some of the flexible hoses, which should be replaced by pipe. The use of hydraulic drive is preferable to a standard transmission



[Guide photos] Cyril Sharpe removes the operator's seat to gas up the novel litter bug

as no clutch is required and the machine is less cumbersome and more maneuverable. The litter bug has a maximum speed of 3 m.p.h. "That's plenty fast in the building," says his son Bill who usually drives the machine. The finger-tip hydraulic controls are very sensitive and the machine can be moved at any speed up to the maximum, or turned in its own length of 5 feet. It weighs 1,000 pounds and can be driven right onto the elevators in the multi-storey hen houses. To avoid the danger of tipping, the center of gravity has been kept as low as possible. —P.L. V



Bill Sharpe steers the machine with his left hand by controlling the hydraulic power to each set of dual wheels; with his right hand he can raise, lower or tip the 300-pound capacity bucket

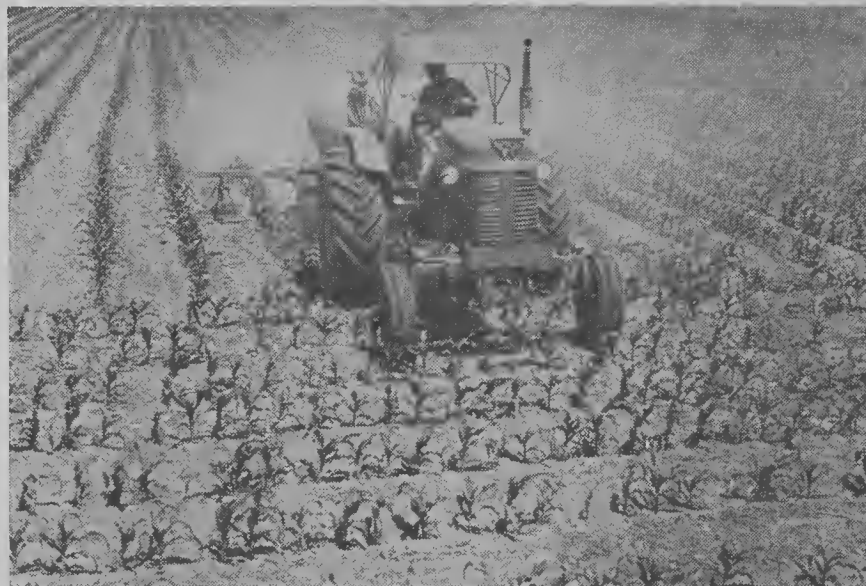
Narrow-Row Corn

THERE IS A LOT of talk and some action relating to growing corn in narrow rows. Just how narrow is narrow? Well, it ranges all the way from 32-inch rows down to 17-inch. Interest in narrow rows has been sparked by the realization that a change from the traditional planting pattern can result in more efficient use of both sunlight and moisture. With effective chemical weed control, narrow rows have become a practical prospect—for some farmers.

Research in both Canada and the United States leaves little doubt that higher yields are possible with the shift to narrow rows; precise yield increases range from 5-10 per cent. However, these increases will only be worthwhile for those farmers who already utilize all the good corn-growing techniques for getting maximum yields. Yields should exceed

100 bu. per acre under existing practices before it becomes feasible to even contemplate narrow row corn growing. Equidistant planting gives further promise of yield increases; however, most of our hybrids were designed for growing in row widths of up to 40 inches. If the trend to narrow rows continues, it will be accompanied by the breeding of corn varieties which are shorter and designed to intercept more of the available sunlight.

The big roadblocks to narrow row corn are the high cost of replacing standard equipment and the shortage of corn equipment designed for narrow production. A change to narrow rows necessitates numerous other equipment changes. A 5 per cent yield increase may look too small to justify sweeping changes in equipment.—P.L. V



[Guide photo]

Oil for Troubled Corn Fields

VERY FEW WEEDS have escaped the effects of herbicides in this field of corn. The recipe was 3 pounds of Atrazine 65W per acre in a mixture of 25 gallons of water and 1½ gallons of emulsified oil. In order to get a really satisfactory weed kill, atrazine requires the sort of weather which is conducive to good corn growth. Cold weather inhibited its weed killing action in 1964 while this year some fields were just too dry to activate the herbicide. The addition of the emulsified oil makes the atrazine far more effective against weeds up to some 4 inches in height. Providing there is enough surface moisture the atrazine has a residual effect on later emerging weeds.—P.L. V



A standard bean and beet planter adapted to planting eight 17-inch rows

[Guide photo]

Oats Yield Best as Annual Pasture

IN DRY YEARS when perennial grasses are in short supply you can use an oat crop for pasture. There is not enough use being made of high-producing annual forages for this purpose, according to D. H. Heinrichs and G. K. Harris, Swift Current Experimental Farm. Most stockmen look on forage oats as a hay or silage crop. Yet tests have shown that oats will yield more pasturage than barley, wheat or spring rye and can be grazed more frequently.

At Swift Current, seven oat varieties which are recommended for general use in Saskatchewan were tested for their forage production abilities under both dryland and irrigated conditions. These varieties were: Ajax, Garry, Russell, Exeter, Fortune, Rodney and Victory.

It was found that although the forage yield of these varieties differed very little under either irrigation or natural rainfall, there were pronounced differences in protein content and root development. The early-maturing variety, Ajax, produced just as much forage as the others, but its protein content declined at a more rapid rate. Seasonal protein yield differed widely from one variety to another with Exeter giving the highest and Russell the

lowest protein yield on both sites. But the protein content of all varieties declined rapidly as growth progressed.

Another feature studied was resistance to pulling. This is very important in an annual pasture plant, for grazing animals tend to pull young plants out of the soil. It was found that resistance to pulling increased in all varieties as the plant developed right up to the dough stage, then declined as root systems began to age. Regrowth rate was found to be low when plants were in the flowering stage. Because of these factors, you should not graze your oats until your plants are in the boot, or flag leaf, stage.

Oat varieties also differ in their resistance to pulling. In the Swift Current tests, Fortune showed the greatest resistance while Exeter proved to be the poorest. A most important discovery was that it took three times as much force to pull plants from irrigated soil than from dry land. This was found to hold true through all stages of plant development, possibly due to the bigger root systems which plants develop under irrigation.

However, no one variety of oats showed a clear-cut superiority as a fodder producer. V



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Dwarf Tulips Bloom First

PLANT TULIPS 8 inches deep for best results says Dr. E. W. Toop of the University of Alberta's horticultural division, Edmonton. But, he

warns, don't plant them too close to buildings especially in a southern exposure. The reason: warmth from the building brings them on in Feb-



If a new truck or tractor—or both—would lighten your workload and increase your farm's efficiency, your Bank of Montreal manager is a good man to see.

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The lily-flowered tulip shown is just one of hundreds of tulip varieties being tested for growing in specific areas of the North American continent



ruary or March and exposes them to the first cold snap. If bulbs are planted 4 to 6 inches deep they may heave or become exposed by soil erosion.

Dr. Toop is one of many horticulturists involved in a co-operative project to determine the best tulip varieties for specific areas. Bulbs come from Holland and are channeled through the Netherlands Flower Bulb Institute to 16 centers, 11 in the U.S. and 5 in Canada, one of them at Edmonton. Other Canadian test centers are the Montreal Botanical Garden; Royal Botanical Garden, Hamilton; Central Experimental Farm, Ottawa; and Niagara Falls Parks Commission.

Dr. Toop is testing 155 tulip varieties representing 13 classes. They include Single early, Double early, Mendel, Triumph, Darwins, Darwin hybrids, Lily-flowered, Breeder, Rembrandt, Single late, Double late and Parrot.

His tests so far show the dwarf species to be the first to bloom. The first ones flowered on May 10, others were in bloom by May 20. Next to bloom were single and double early varieties. Darwin hybrids flowered around May 24 and continued until early June. Darwins came the first 2 weeks of June followed by Breeder, Parrot and lily-flowered varieties in mid-month. Lily-flowered tulips come in many colors and white ones, with their pointed, tip-curved petals, are reminiscent of Dutch girls' traditional caps.

In their studies Dr. Toop and his staff note the date the plants come above ground, when buds appear, when the first flower opens, when flowers are fully open, and when they begin to fade. They take measurements of length and width of cup, and stem length and record stem strength, flower substance and flower form. Substance includes thickness of the petals as sensed by feel, and absence of an early tendency to curl at the edges.

Dr. Toop says that one of the best tulips with classical form is the Darwin hybrid, Gudoshnik. These are yellow, spotted with red and flamed

rose and have a bluish base and black stamens. These tulips have good substance, good stem strength and last a long time.

Tests are to continue for another 2 or 3 years.—E. B. Swindlehurst V

Beetles Beat Insecticides

BECAUSE Colorado potato beetle larvae have increased their resistance to DDT it may be necessary to apply substitute compounds. So say researchers at the CDA's Lethbridge, Alta., research station. They point out that in 1957 they got satisfactory control in one district at the recommended rate of 1 lb. of DDT per acre. Last year, however, DDT sprays in the same area at four times the recommended rate were inadequate and laboratory tests revealed a 10-fold increase in DDT necessary for an effective kill of the test larvae.

For this reason they recommend the use of substitute compounds rather than a heavier application of DDT in districts where DDT does not control the Colorado potato beetle. Information on the alternatives is available from district agriculturists. V

A.I. for Bees

RESEARCHERS at CDA's Brandon experimental farm have scored a first in apiculture research by successfully breeding bees in winter.

In their tests, they reared drones and queen bees to maturity. Then, when the queens were artificially inseminated, most of them produced normal broods in miniature colonies.

Until now only two or three generations of bees could be reared during a summer season. Now, with present facilities and techniques, bee breeding can be carried on throughout the year. It is expected the techniques developed at Brandon will not only help the honey industry, they will also be useful in current research into the use of bees as pollinators. V

Mechanics

Handle Potatoes in Bulk

TO OVERCOME a labor shortage and to save a lot of sheer muscle power and plenty of valuable time, the ingenious Kishimoto Brothers of Elgin County, Ontario, have developed and built some highly specialized machines in their farm workshop.

When they began to market their potato crop to a food processing firm, and delivery was to be in bulk, they had to find an easy and cheap method of filling the big shipping crates. So brothers Sam, Mas, Yuch, Nanao, Matsu and Keikichi developed a plan for a wagon that could handle four bulk boxes on the run.

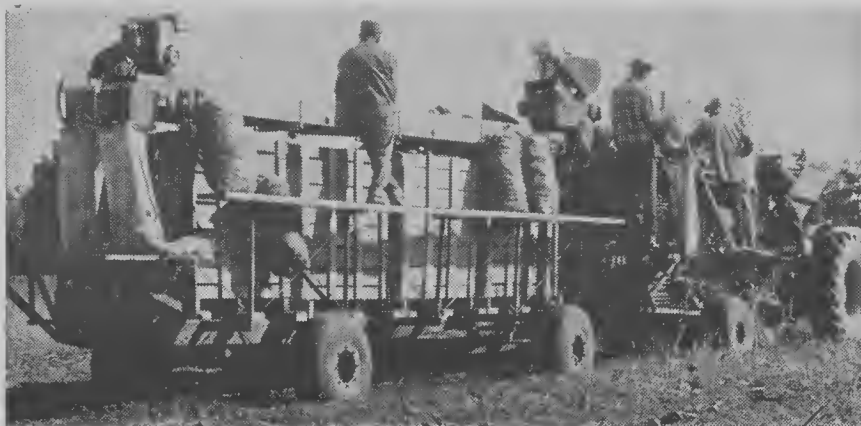
Now, their potato "train" which is operated by a crew of seven men and women, consists of their heavy duty tractor hauling their home-built digger and grader, with the new wagon with its bulk box (which is equipped with an engine-powered conveyor belt) hitched on behind.

Unloading is simple. A tractor equipped with a lift shifts the heavy boxes from wagon to truck transport for delivery to factory. This eliminates costly handling delays.

The inventive brothers who also grow one of the largest turnip acreages in Ontario have also fully mechanized their turnip harvesting.

To speed the lifting of the crop between the first frosts and freeze-up, they transformed a World War II army truck into a high speed self-propelled wagon. The frame was extended 8 feet to accommodate the self-unloading body, the engine and driver.

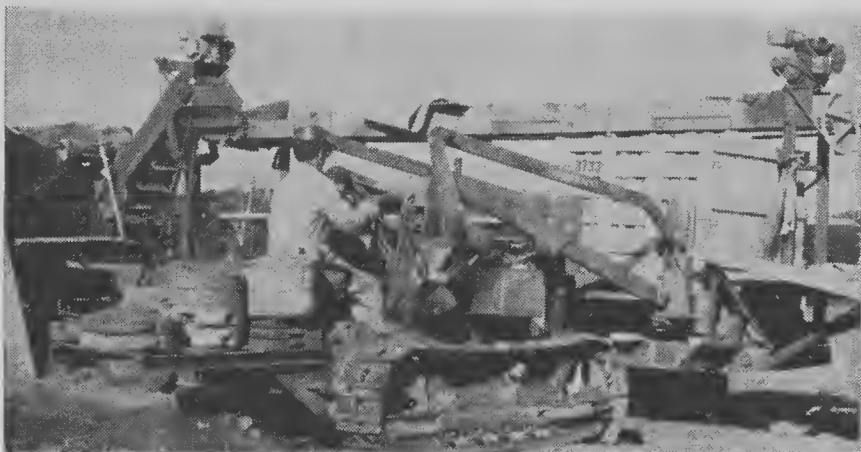
They also built their own turnip waxing plant using machines of their own design.—Arthur Goodwin V



The homemade self-unloading bulk box wagon forms the caboose of their potato "train." The potatoes are dug, graded and loaded into bulk boxes for delivery by truck to a processing plant — all on the run in the field

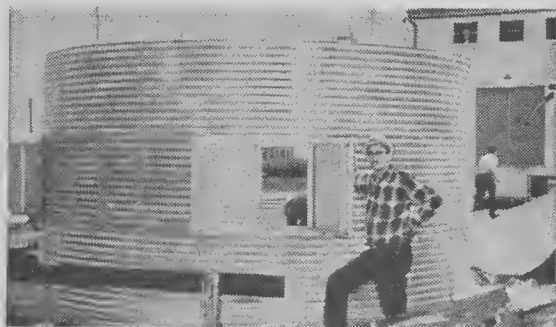


This wagon for hauling turnips, which was built from an old army truck, can speed through the fields faster than a tractor. On a road, it hurries along at a nimbly 35 m.p.h.



A lift-equipped tractor moves the heavy boxes from wagon to transport truck

Buildings



[Guide photo]

New units have a separate hatch for each compartment — estimated cost about \$550 per unit

New Grain Bin

SEED CLEANING plants are showing interest in a new type of farm grain bin which is divided into four 300-bushel compartments. Available in either steel or plywood, the new bins will enable a farmer to store small lots of grain in one unit in-

stead of tying up several single-compartment bins. If enough farmers buy these granaries, seed cleaners feel that it will help relieve the pressure of cleaning work each spring.

Said Walter McCarty, plant man-

ager for the Leduc Seed Cleaning Association Ltd., "This way, a farmer can get his seed grain cleaned in the fall when rates are lower, and store it at home until he's ready to seed. It would also give us a chance to spread our work over a longer period. This plant could handle about 400,000 bushels a year if we could spread the work volume over 10 months."

Spence Goddard, supervisor of special projects for the Alberta Department of Agriculture, thinks these new bins will help encourage the movement of grain to cleaning plants during slack periods. There is a great clamor for new seed cleaning plants all over Alberta at the present time. If farmers had facilities for storing small grain lots many of these projected plants would not be needed.—C.V.F. V

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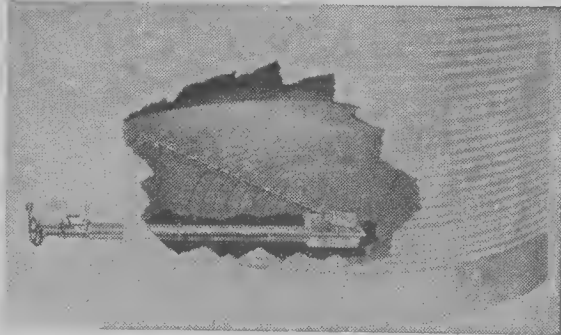
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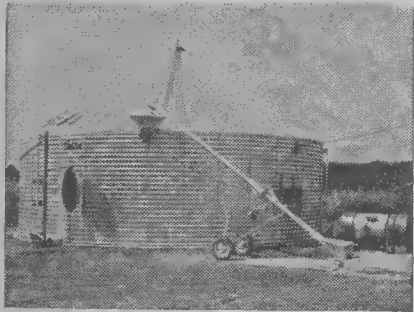
What's New

Bin Unloader

This bin unloader is designed to unload grain from a hopper placed in the center of the bin floor. One power supply located outside the bin operates both the sub-floor unloader and the sweep auger. There are no motors, belts or wires inside the bin. (Wyatt) (549) ✓



Grain-Drying Tanks



This 40-foot diameter grain-drying tank equipped with a 48-inch fan and 6 million B.t.u. built-in heat unit is designed to dry a 3,000-bushel batch of grain from 25 per cent to 15 per cent moisture in only 4½ hours. An optional control system permits the operator to select natural air, supplemental heat, or constant heat. (Behlen Manufacturing Company) (550) ✓



Diesel Engine

A 4-cylinder, 62 h.p. diesel engine is now available in this well-known utility vehicle. This grill ornament will be placed on vehicles equipped with the diesel engine. Specifications for the diesel engine include: cylinder block and crankcase of one-piece high-duty alloy iron casting; cylinder bores fitted with pressed-in renewable high-duty cast iron liners. (Kaiser Jeep Limited) (551) ✓

Healing Substance In Preparation H Shrinks Piles

Exclusive Healing Substance Proven To Shrink Hemorrhoids And Repair Damaged Tissue.

A renowned research institute has found a unique healing substance with the ability to shrink hemorrhoids painlessly. It relieves itching and discomfort in minutes and speeds up healing of the injured, inflamed tissue.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most important of all—results were so thorough that this improvement was maintained over a period of many months.

This was accomplished with a new healing substance (Bio-Dyne) which quickly helps heal injured cells and stimulates growth of new tissue.

Now Bio-Dyne is offered in ointment and suppository form called Preparation H. Ask for it at all drug stores—satisfaction or your money refunded.

How to Hold FALSE TEETH More Firmly in Place

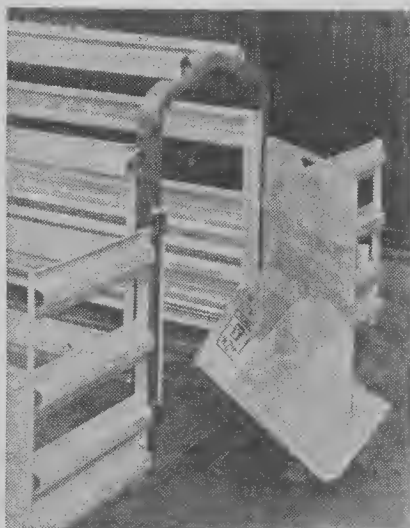
Do your false teeth annoy and embarrass by slipping, dropping or wobbling when you eat, laugh or talk? Just sprinkle a little FASTEETH on your plates. This alkaline (non-acid) powder holds false teeth more firmly and more comfortably. No gummy, gooey, pasty taste or feeling. Does not sour. Checks "plate odor" (denture breath). Get FASTEETH today, at drug counters everywhere.

Commission sales agents with cars, must be bondable, to call on local farmers.

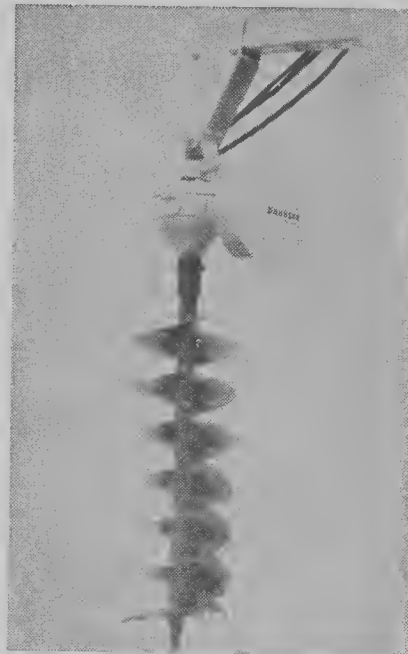
FARM NECESSITY.

WRITE VICE-PRESIDENT TCB
P.O. Box 922, Windsor, Ontario, Canada.

Steel Farrowing Pen



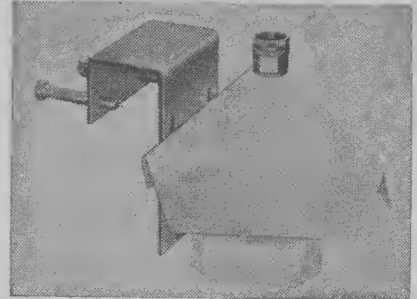
This steel farrowing pen uses sturdy galvanized steel construction with safety rolled edges and a one-piece, cold formed end arch at each end with no cuts or welds. The sides and rump bar are adjustable to accommodate animals of different sizes. Gates open from either side to permit feeding and easy cleaning. The swinging feed and water gate is designed to open either way. (Life-Time Gate) (552) ✓



Hydraulic Boring Head

This is designed for boring in earth with augers up to 16" in diameter. It requires a minimum hydraulic output of 14 g.p.m. at 1,500 to 2,500 p.s.i. It is designed to be hung, by single point suspension, from a loader bucket or backhoe. (Danuser Machine Co.) (553) ✓

Automatic Tank Valve

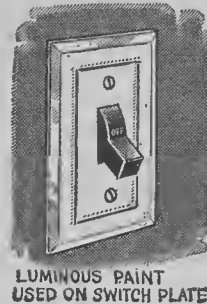


This galvanized steel automatic tank valve has been designed for easy installation on stock tanks, watering troughs or drums merely by tightening two bolts and connecting a standard garden hose. It is designed to automatically refill the tank to any pre-set level and is said to be capable of delivering up to 450 gallons of water per hour. The valve and float are shielded from animals. (Ritchie Manufacturing Co.) (554) ✓

For further information about any item mentioned in "What's New," write to WHAT'S NEW, Country Guide, 1760 Ellice Ave., Winnipeg 21, Man. Please quote the key number that is shown at the end of each item.

Workshop

Luminous Light Switch

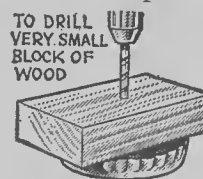


LUMINOUS PAINT USED ON SWITCH PLATE

Luminous paint on switch plates that are in dark places makes them easier to locate. This saves fumbling around for the switch when in a hurry. —S.M., P.E.I. ✓

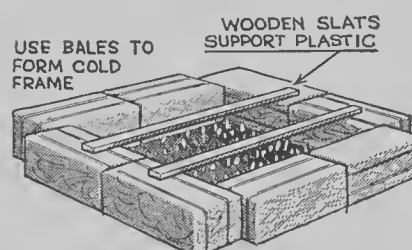
Cap Holds Stock

Drilling a hole in small flat pieces of wood is difficult without a vise. A bottle cap fastened rough side up to the bench will hold the stock firmly. —J.W.G., Alta. ✓



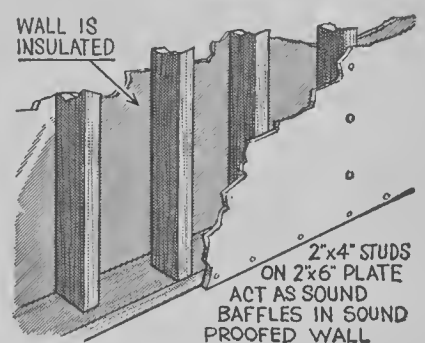
ATTACH BOTTLE CAP TO WORK BENCH

Bale Cold Frame



A simple cold frame can be made from four or more bales of hay or straw placed on the ground. Cover with a double thickness of clear plastic. —B.C., Calif. ✓

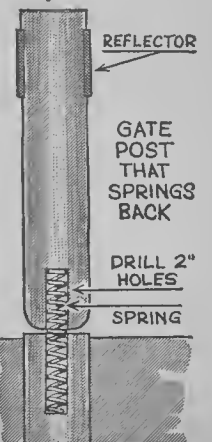
Soundproof Room



By separating a room from the rest of the house by this soundproofed wall you can get a quiet study room, or office. The two-by-four's are staggered to provide a dead space and prevent contact between the two wall panels. —A.W., Alta. ✓

Flexible Driveway Marker

Driveway markers at the entrance to narrow driveways are often broken off. By equipping the post with a spring as shown in the diagram, you can make a flexible driveway marker that will recover from accidental collisions. —G.S., Alta. ✓



the trotting mare

by
BRIDGES WHITTALL



Illustrated by GORDON COLLINS

AUNT BESS WAS PLAIN MAD when Uncle Bob bought Grayling's Fancy. I was just twelve at the time, but even a boy could see Fancy wasn't a pet. She was a trotting mare, and a good one.

Uncle Bob and Aunt Bess Linton lived on the stretch of road that was always used for trying the trotting heats. From the corner of the pasture it ran straight and true to the Correction Line, the best piece of racing road in the whole county. This Correction was a sort of jog in the line the surveyors make, and it was the perfect finish for a racing stretch.

You couldn't help but get real excited when you watched those trotting races, the horses stretching their necks forward as if to get every last inch out of each stride, their hoofs clapping down on the dirt road like a drummer at practice, and the light cart and the driver whirring along almost on top of the running heels.

"Why in tarnation," said Aunt Bess, waving the long fork she used to spear doughnuts from the hot fat, "do you think you want a trotting horse for? Tell me that, Bob Linton! It wasn't enough that Molly Crain left me just before the threshers came last fall, and me with a whitlow on my finger . . . but now you have to pay good money to them for that . . . that trotting fool." Aunt Bess dumped hot brown doughnuts onto the board with unnecessary violence.

"Her name isn't Crain now, and Molly had nothing to do with me buyin' Grayling's Fancy," stated Uncle Bob slowly. "Now just calm yourself right down, Bess."

"You bought it from that lame brain she married," retorted Aunt Bess. "And he isn't good enough for her by a long chalk!"

"Why, Bess, how you talk! They were fixin' to marry right from the spring. You haven't been decent to Molly since she won over you with her chocolate raisin cake at the fall fair!"

"And who," demanded Aunt Bess, "taught that flippity girl how to make that cake? I took her when her Ma left so sudden, and I taught her about the house and garden and butter and bread, and pigs and chickens. Then to get married sudden-like, right behind my back!"

"Now, hold on, Bess. Molly and Bate asked you to their wedding. Why didn't you go?"

"Humph!" Aunt Bess flounced back to the stove, "My own cake recipe, too!"

"Did you know that Molly and Bate're fixin' to have a young'un soon?" asked Uncle Bob, and I took the opportunity to slide another doughnut off my side of the bakeboard.

"There hasn't been another thing on the party line these three weeks," sniffed Aunt Bess. "All the neighbors can find to use the telephone for is to wonder will Molly's mother make it back in time for the birthin'."

"How'd you know what they use the line for, Bess?" asked Uncle Bob slyly, as he slid out of the door.

GRAYLING'S FANCY was different from the other trotters. She stood at about seventeen hands, her feet were big and her legs were bony, her head was large, and she had one dark eye and one white one. Right from the start I sensed it'd be well for me to keep away from her heels.

But that mare could run! Uncle Bob took her out early one morning, just after he got her, and I watched while he eased her along the stretch. Standing around she looked raw-boned and clumsy, but with the light, two-wheeled sulky bowling at her heels, she reached those long legs forward and just ate up the road.

Uncle Bob was the only one Grayling's Fancy'd pay any mind to, and a couple of times she nearly caught me between her side and the partition and would have squeezed the breath out of me if I hadn't nipped up to the top of the stall.

She'd do anything for Uncle Bob, though, and when he patted her and combed her forelock while she was eating her chop, she'd flip up her long upper lip from her teeth and brush his shoulder with it. Sometimes she'd take the cap right off his head and drop it into the manger. At the far end of the pasture I've seen her lift her head and come running to his first whistle.

One day, when Uncle Bob was away, me and Aunt Bess were feeding up, so I took Fancy's fodder. She let me walk right up beside her with my arms full of oat sheaf and waited until I dropped it in the manger. Then she clapped her outsized hoof on my boot and leaned toward me. I let out a holler that brought Aunt Bess running.

"She's on my foot!" I yelled.

"Get over, then, you good-for-nothing!" cried Aunt Bess, hitting Fancy on the rump in a way that would make any self-respecting horse side-step in a hurry. Not Fancy! And not for us! Then Aunt Bess got mad. She whirled and picked up a hayfork, its long tines glinting in the light, and she started for Fancy. Before she could reach the stall the mare stepped off my foot, dropped her

head to the manger, and was feeding peacefully as a sheep.

"What could you expect of an animal that came straight from Bate Trueman's?" my aunt asked, as if that explained everything.

One day when Aunt Bess had her tea towels out drying on the line, Fancy waited until Uncle Bob was loosing the other horses, then she rolled that white eye and sashayed right up to the clothesline. First she nibbled, then she pulled. By the time Aunt Bess's yells brought us from the barn, the mare had three towels on the grass and one in her mouth.

"Bob Linton!" gasped Aunt Bess when she could get her breath. "You keep that critter away from my clothesline! You hear? You let her roam around here messing things up and making more work for me, and I'll take the shotgun to her. And I'm not fooling!"

"Aw Bess, have a heart," reasoned Uncle Bob, "she's only a poor dumb beast that doesn't know what she's doing. She'll learn!"

Aunt Bess gathered an armful of tea towels and headed for the kitchen. She didn't say a word, but the way she walked she had no need to.

"After this, seems like we'd better untie Fancy last, eh, Johnny?" said Uncle Bob, and the twinkle in his eye somehow reminded me of the way the mare tossed her head.

THEN, ABOUT a week later, the Ladies' Aid met at our place. Aunt Bess is the slickest housekeeper that ever was born, but you never saw such goings on as she went through to get the place ready for those Ladies' Aiders. Every curtain had to be washed, and every floor scrubbed, even the hired man's. Aunt Bess rubbed knives and forks and spoons until they twinkled, and I had to rake every inch of the yard, while Uncle Bob polished the windows inside and out. At times I wondered if even Aunt Bess's cream puffs were worth all the fuss.

We had finished the noon meal that day, and I was reaching Aunt Bess the special cups and saucers from a top shelf, when I heard her sort of gasp. I looked around and there was Grayling's Fancy at the dining room window. She was rubbing her muzzle over the glistening pane, and wherever she touched it there was a queer silvery streak.

"What in the world is that critter doing?" groaned Aunt Bess, her eyes staring from her white face.

She was out of the kitchen door in a flash, and me right after her. Grayling's Fancy had moved over to the second window. Apparently she had liked the taste of the ashes in the dump down the hill, and, after sampling it lavishly, her lips and muzzle were covered with a sort of gray ash paste where she had licked the heap. That was what caused the queer marks on the windows.

If it had been anyone but Aunt Bess she'd have fainted. As it was, she was purple as she glared at Uncle Bob when he came out of the implement shed pulling the two-wheeled racing sulky into the open.

"Bob Linton!" she said, and you could almost see icicles from her

words glinting in the summer sunshine. "Get that animal away from here or I won't be answerable for what I'll do!"

Uncle Bob looked real worried.

"Get hold of Fancy," he said aside to me, then gently to Aunt Bess, "Aw don't take on so, Bess! She didn't mean nothing. Look, me and Johnny'll clean those windows right away, good as new. You just get into the house and put on your good duds ready to greet those Ladies' Aiders."

We did get them cleaned, too, just as the first Aider, in her best summer dress, drove into the yard. That day Uncle Bob raced Fancy against Mr. Geeker's Southern Wind for three heats, and won two of them. He was as pleased with the mare as he was worried about Aunt Bess.

"Don't come soft-soaping around me, Bob Linton!" she said, when Uncle Bob sort of hung around after supper. "You get that brute off this place, for if you don't sell her, I will!"

"Why are you in such a state, Bess?" asked Uncle Bob. "What's wrong? I haven't ever seen you go on like this!"

"It's the heat," began Aunt Bess. Then her voice quivered. "That flippity Molly Crain . . . oh, all right, Molly Trueman! . . . isn't as well as she should be. The ladies were talking about it this afternoon. And Miss Crain hasn't got back from the East yet, and no word from her. I'm worried!"

"Molly's young and she's good stuff," said Uncle Bob, soothingly. "She'll foal without too much fuss."

THE NEXT DAY I noticed that Aunt Bess was still bothered. Twice she went to the phone on the wall and lifted the receiver. Then, with her hand on the bell crank, she dropped it back and returned to the stove. Twice she did that, and I knew she wanted to phone Molly to ask how she was, but she wouldn't let herself.

Later Uncle Bob called me to hitch Old Billy to the buggy.

"Got to go to town, Johnny," he explained. "The spokes on the nigh wheel of the cart aren't right and I'm scared she'll flop on me. Ed Shulton's beat everybody in these parts, and he's blowing he'll be Cap Sheaf this year same as always. I aim to convince him different. Fancy'll beat that Slap-Up of his, I know 'cause I held her back when he beat us the other day. Only that wheel isn't in any shape to stand a slapping half mile."

As Uncle Bob drove off he called for me to hitch Fancy to the racing sulky, and have her standing just in case he was delayed. I did as he said, then went to see if there were any pies or cookies that would be thrown out unless someone ate them right away. Aunt Bess was looking down the road toward the Correction Line.

Several harness racers were there with their rigs and a group of on-lookers had gathered to see the race. I could see the slick black gelding that was Mr. Shulton's Slap-Up. He, himself, was sitting with his feet

(Please turn to page 37)



Wrong Side

During the latter part of May and early June we had our first trip overseas to Britain. After a short stay in London we rented a car and began a three-week tour of England, Wales and Scotland. I am sure that my wife will never forget those first few days on the road. We started out from the heart of London and I have a suspicion that she kept her eyes closed most of the time. The weather had turned cold that week and I tell her that I was never quite sure whether she was shivering from the cold or from fear!

After thirty years of driving on the right-hand side of the road it required a conscious effort to keep to the left instead. I knew that if I relaxed my attention, I would instinctively head for the right, especially in an emergency.

Life would be impossible without the habitual patterns which we develop from experience. These patterns allow us to react automatically with a minimum of thought. Of course, that is why it is vitally important to learn the right habits which result in appropriate actions. It is very difficult to change our normal patterns once they are established, and we do *not* change them, unless we must. Such a change can only be made through conscious effort and close attention.

Many of us have relaxed into our own "design for living." It seems complete and it satisfies us; but, it is not God's design. Therefore it must be changed if we are to travel safely and significantly. The necessary change will not come easily and we will find many reasons for avoiding it. Even when we do commit ourselves to make it we must *consciously* attend to it moment by moment, especially at first. Later on it comes easier as the new patterns really begin to displace the old.

Suggested Scripture: St. Matthew IX, verses 1 - 17.

High Tide

*There is a tide in the affairs of men,
Which taken at the flood, leads on to fortune;
Omitted, all the voyage of their life
Is bound in shallows and in miseries.*

—Julius Caesar (Shakespeare)

As inland Canadians we are not familiar with the dramatic effects of the rising and falling of the tide. On our trip we came to the little village of Solva, near St. David's in Wales. The tide was out and the river was a tiny trickle across vast flats of mud and sand. The fishing boats lay marooned, immobile, lifeless on the bottom of the bay.

Later in the day we saw them again. The tide was in and the blue water filled the harbor from shore to shore. The little boats bobbed in the wind, alive and restless at their anchors. Now was the time to go fishing. Now a voyage was possible, anywhere. The great green headlands of St. Bride's Bay pointed out to the sea itself and the wide world belonged to the sailor.

The trouble with many of us is that our inspirations and good intentions seldom coincide with our opportunities. We are always going to do this or that tomorrow, or we are looking back and wishing that we had done it yesterday. Opportunities are recognized not for what they are but in regret, looking back or in procrastination looking forward to some other day.

By definition opportunity doesn't "keep." It won't wait for you. However inconvenient it may be otherwise, you can only go sailing when the tide is in. There's never a day goes by that we don't have chances to help others and so to help ourselves to fuller, richer lives with wider horizons. Like the tide, opportunity comes and goes. How often do we make the most of it?

Suggested Scripture: St. Luke XVI, verses 19 - end.

Bed and Breakfast

"Bed and breakfast." That's a familiar sign along the roads of Britain, and a very welcome one to the traveler. It will be seen outside hotels, inns and private homes. Once you realize, that, except in the very large centers, you won't find a room with a bath, you come to the conclusion that it's just as sensible to stay in a private home, since you'll have to "go down the hall" anyway.

The rates for bed *and* breakfast are amazingly low. In homes or guest houses we found the charge almost always less than twenty-five shillings (\$3.75) each. At one place — the lovely village of Ballachulish in Scotland, we were given bed and a hot breakfast for fifteen shillings each (\$2.25)! This accommodation was equal to any we'd had.

Along with these reasonable charges we found a never-failing courtesy and warmth. You always felt like a welcome guest and not just like a paying proposition. Compared to our modern motels the accommodation was primitive; but we discovered how little you really need to be happy and comfortable and that courtesy and friendliness are really much more important than TV and a shower in every room.

Suggested Scripture: St. Luke IX, verses 57 - 62.



[Guide photos



Water drawn from river glimpsed in background of photo (1.) is filtered for pool use. Cement apron outlines pool on farmhouse lawn. A screen and frame sundeck (above), overlooking pool, combines indoor-outdoor living features

Summertime . . .

BY WORKING with the advantages nature provided, one Ontario farm family found they could have the best of summer's pleasures right at home. And without spending a lot of money.

The farm is located along a river. Because the lawn ends at the river's edge, the farmer and his wife wanted their children to know how to swim. A pool, using filtered river water, would be cleaner and much easier to supervise than the river itself, they reasoned. In 10 years of use, the pool has proved itself an asset to their own children and the many neighbors who also learned to swim there.

Built of cement on the grassy knoll next the farm house, the pool is a 26-foot-long oval with a bowl-shaped bottom. A coat of paint in a Mediterranean shade of blue was applied to the cement to offset the greenish tint of the river water. The water is filtered for a day and a half before it can be used for swimming, and the filter is backwashed during this time. Once filled, the pool is vacuumed daily and treated with

chemicals as indicated on a tester until it is time to empty and refill the pool again.

The youngsters spend many happy hours in the pool. Adults and children alike enjoy summer meals in a screened sundeck overlooking the pool, which provides the open air benefits of the summer season free from unwelcome insect pests.

The screen and frame sundeck was added when a new kitchen was built on the old frame house several years ago. Both rooms overlook the family's favorite view down the winding river.

Handsome wrought iron furniture for the sundeck was built by a local blacksmith working from a picture the farm wife clipped from a magazine. Round foam cushion forms were covered in off-white vinyl for the chairs used at the meal table. The homemaker herself covered the square cushion seats and backs for the lounge chairs, using a jewel-toned print fabric. Some have arms, others have none, so several can be arranged in a row as a chesterfield. V



Adults supervise swimmers in fly-free comfort. Sundeck is attached to house and connects with kitchen via double-width sliding glass doors



Snack bar serves as kitchen eating area and serving counter for pass-through window to sundeck dining table. There are three drawers beneath bar for bread, linens and books



Many summer meals are eaten at this table in the screened sundeck. Wrought iron table and chair set, and another set of lounge chair frames were made by local blacksmith working from a magazine picture the farm wife provided

Home and Family

by GWEN LESLIE



Fathers of children who were enrolled in the kindergarten built and painted all of the equipment that was needed. Mothers helped too. Here teacher Margaret Janz supervises

[Guide photos

*If there's a will
there's a way to have a*

Kindergarten in a Community

by **ELVA FLETCHER**

Home Editor

KINDERGARTENS ARE the exception rather than the rule in the country. There are reasons, of course. For one thing, there's the difficulty of transporting small children to a convenient gathering place for rather brief periods of time. There's the added problem of getting qualified teachers. And, sometimes, it's plain old apathy on the part of parents.

However, in the Souris district of Manitoba, a small group of people have proved to themselves and others that a community can have a kindergarten, if the people there have a lot of good will for their own and their neighbors' children and if they're willing to devote a fair amount of time to studying the various methods of operating this very special kind of school.

No two people are more aware of this than Jean Strath and Eleanor Ingalls because, between them, they spearheaded the drive that brought a kindergarten into being for the children in their community.

The Straths farm a few miles north of Souris; when the kindergarten started, the Ingalls lived in town where Eleanor's husband represented the RCMP. Jean was determined that her children would have the benefits of kindergarten training. So was Eleanor. And Jean says, "We'd talk kindergarten every chance we had to anyone we thought might be interested."

They also did a kindergarten survey. For example, they checked with the provincial department of education to see what could be done, wrote to Ontario for information, talked to members of the local school board.

From the education department they learned there were two kinds of kindergartens operating in the province. One was offered by school boards in urban areas. The other—private kindergartens—came under the wing of the province's health and welfare branch which laid down very definite regulations covering such schools.

When the school board decided it could not undertake such a project, Jean and Eleanor decided to see what could be done privately.

They met with the local home and school association to discuss the idea, compiled a list of all the 4- and 5-year-olds from birth and health insurance records in the municipality. They searched out available space, talked with nursery school operators in nearby Brandon and Killarney. Armed with all the information they had gathered, they called a meeting.

Out of that meeting came the provisional kindergarten board that, a short time later, applied to the Provincial Secretary and got a charter for the Souris Co-operative Kindergarten. Then the board members really went to work.

They prepared a budget of estimated revenue and expenses. Expenses included a teacher's salary (the biggest item, of course), rent, caretaker's services, equipment, supplies and insurance. They began to check out the various locations that were available and would meet sanitary and fire regulations. They advertised for a teacher. Applications went out to families with children of kindergarten age; arrangements were made with the local medical health officer to give the children general physical examinations and audiometer tests. They ordered classroom supplies, collected usable scrap materials from local outlets and organizations.

They had everything ready to go by April of 1959. They had already decided they would operate on a 3-month term and, while they have since changed the term to run from February to April, the 3-month term still applies.



Curriculum in use at the kindergarten prepares the children for their first days in primary classes

The classes, which take in 4-, 5- and 6-year-olds, cost \$7.50 per child per month. They're held in the United Church Hall in Souris from 9 until 11:30 each weekday morning. Space does limit the number who can attend (department of health regulations spell out very carefully the space required for each child). However, there are usually between 25 and 30 boys and girls. Some come in from farm homes but most of the children live in town.

While the biggest expense of operating the kindergarten is the teacher's salary, Jean Strath says "we've always been fortunate to have a top-notch teacher."

There have been only two of them since the school opened. The first one was a kindergarten specialist who lived in the district. Then, a few years ago, Margaret Janz, Souris farm wife and teacher, succeeded her. Margaret had already had 6 years' experience in elementary schools but she still supplemented that experience by taking special classes in kindergarten teaching methods and programs. She is enthusiastic about her small charges. "It's a wonderful experience to work with the pre-schooler," she says, "especially when you can watch and see the shy, quiet ones as they develop into out-going, active little people."

The children who go to the Souris kindergarten learn words and numbers, make scrap-books on specific subjects, play games and share in sing-song and story times. And there's a milk and cookie break mid-morning. It's all designed to prepare them for primary school. And that, as Jean points out, was the basic purpose of launching the kindergarten in the beginning.

The church hall where classes are held is a bright, cheerful place, sufficiently large that the children can have their play period indoors when the weather is wet. Otherwise they move outdoors to the surrounding grounds.

The kindergarten equipment is simple but adequate, most of it built and painted by fathers who had enrolled their children for classes. As Eleanor Ingalls explained all the activity that preceded the official opening, "It was a family and community project."

As for Jean Strath, two of her girls have long since outgrown kindergarten. But other mothers are taking advantage of the pre-school training it offers. And so, as far as she is concerned, she's been well repaid for all the time, study and effort she put into a unique community project. V



10-153. "The Gleaners," by the painter Millet, is worked in 6-strand cotton on painted canvas 13¾" by 18½". Complete kit costs \$9.50; \$3.50 canvas only.

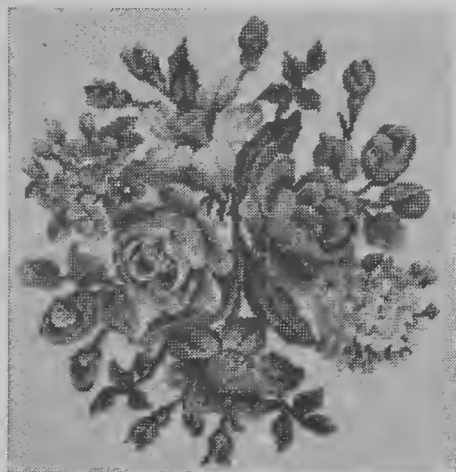
Needlepoint Kits

All Jean McIntosh kits include chart, canvas, needle and enough thread or wool for design. No background is supplied.

M-190. A proud Cedar Waxwing is a partner picture to Oriole and Bluejay. Kits in 2-thread (5" by 6" picture) and 3-thread (6½" by 7½") \$3.50. Wool kit (13" by 15") \$4.50. Chart without materials, 75¢.



M-191. Floral bouquet features roses, mauve and yellow lilies, and small blue and white flowers, another in the picture-or-chair seat series. Petit point kits in 2-thread (4½" by 5" picture) and 3-thread (5½" by 6") \$3.50. Wool picture kit, 24" sq. white canvas, \$5.00. Wool chair seat kit, 26" sq. ecru canvas, \$5.50. Chart without materials, 85¢.



M-192. This pleasing floral with gold scroll (10" by 22") for bench seats is available in wool kits, 24" by 35" ecru canvas, \$6.95. Chart alone \$1.00.

For handicraft patterns pictured above please address your order to Country Guide Needlework Dept., 1760 Ellice Ave., Winnipeg 21, Man.

HANDICRAFTS



it's
"Make More"
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Scraping bottom? Homemade jam is a favourite with everybody—and when you make it with Certo it tastes even *better*. Certo's fast jelling 1-minute boil is the answer: It guarantees fresh fruit flavour . . . natural colour . . . and up to 50% more jam. (Jelly too!) And success is sure—every time you use Certo.



Preserve fresh peaches while they are in season . . . enjoy them all year 'round. Easy recipes for all preserving fruits come with Certo Liquid or Crystals.

See These Sandwiches

OPEN-FACE SANDWICHES take the guesswork out of sandwich selection. Tasty toppings openly invite sampling, and tempt the palate through eye appeal. You'll be pleasantly surprised to find how easy it is to prepare a picture-pretty plate.

There are few rules to follow in making an open-face sandwich. A variety of bread shapes, and bread flavors chosen to complement the toppings, may be used to advantage. And you might like to experiment by adding seasonings to the butter used on the bread base. Select a seasoning to accent the topping: herb butter for sliced tomatoes, curry butter for chicken, horseradish butter for roast and corned beef. Proportions for some seasoned butters appear on this page.

The open-face sandwich may be as hearty as grilled steak pieces served on one-half of a heated French loaf cut lengthwise, with sliced tomato and onion rings on the other buttered half of the loaf. For special occasions, a petite smorgasbord, modeled after the selections for which the Scandinavians are famous, may present artful combinations of colors and flavors beneath a glistening glaze—a challenge to your artistry. Glazing is optional for open-face sandwiches, but does serve to keep toppings moistly fresh. The glaze requires refrigeration to firm it, and of course the refrigerator is the right place for any made-ahead sandwiches containing perishable foods.

One last point to remember is that most open-face sandwiches are served and eaten with a fork. Those containing sliced meat may call for a knife as well.

Open-Face Sandwiches with Savory Glaze

- 1½ c. tomato juice
- ¼ tsp. peppercorns
- ½ bay leaf
- ¾ tsp. salt
- ¼ tsp. whole cloves
- 1 T. chopped onion
- ¼ c. chopped celery
- 3-oz. pkg. lemon-lime flavored gelatin
- 2 T. vinegar
- ½ c. cold water
- 6 to 8 open-face sandwiches

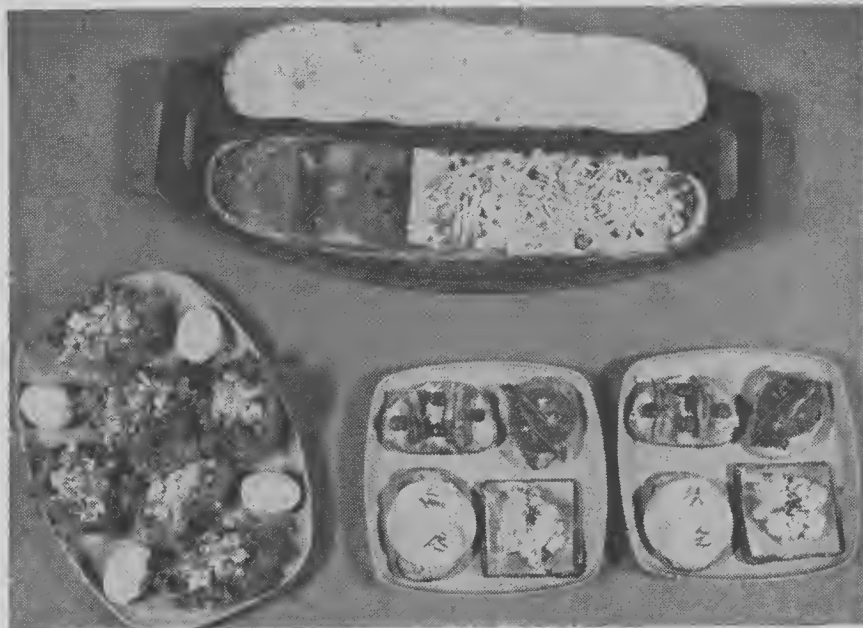
Combine tomato juice, peppercorns, bay leaf, salt, cloves, onion and celery. Cover and simmer about 10 minutes. Strain. Dissolve gelatin in the hot liquid. Add vinegar and cold water. Chill until slightly thickened.

Place open-face sandwiches on a rack and pour the slightly thickened glaze over the filling, allowing ¼ cup glaze for each sandwich. Chill until glaze is firm.

A savory tomato glaze adds a finishing touch to eye-appealing seafood sandwiches. The glistening glaze is quick and easy with a flavored gelatin base



by GWEN LESLIE
Food Editor



Individual sandwich plate suppers feature four breads and open-face topping combinations. Serve with a salad platter and Poor Boy Sandwich for seconds

Upper right: General Foods photo
Center: CDA photo
Lower left: Pan-American Coffee Bureau photo

Sandwich suggestions:

1. Sliced egg, sardine and tomato: Butter slices of rye bread. Top each bread slice with 3 slices of hard-cooked egg, 3 slices of tomato, and 4 sardines. Glaze as directed.
2. Sliced egg and shrimp: Butter slices of whole wheat or white bread. Top each slice with 3 egg slices and 5 cooked jumbo shrimp. Garnish with sliced stuffed olives. Glaze as directed.
3. Cucumber and shrimp: Arrange a layer of thinly-sliced, scored, unpared cucumber on buttered bread from which crusts have been removed. Arrange drained, canned shrimp over top and garnish with sprigs of parsley. Glaze.
4. Swiss cheese, rare roast beef and sliced stuffed olives: Butter a ½" slice of firm-textured white bread. Trim off crusts. Spread generously with sweet butter. If desired, spread mayonnaise or mustard over butter. Cover half of bread slice with sliced Swiss cheese; the other half with sliced rare roast beef. Garnish with a row of stuffed olive slices where two toppings meet. Glaze as directed, or with softly jelled aspic, or softly jelled canned consomme.
5. Sardine and radish: Mash boneless sardines with mayonnaise and mustard to taste. Trim crusts from a buttered slice of sandwich bread. Spread

one-half (draw an imaginary line diagonally to create two triangles) with sardine paste. Arrange thin radish slices over remaining triangle. Garnish with a gherkin cut into a fan-shape. Glaze as desired.

6. Turkey, onion and pimiento: Arrange turkey slices on buttered bread from which crusts have been removed. Top with canned French fried onion rings and garnish with pimiento. Glaze.

7. Cucumber and radishes: Score a washed, unpared cucumber by drawing the tines of a fork firmly down its length. Slice cucumber and arrange overlapping slices in a circle on a slice of buttered bread from which crusts have been removed. Arrange radish slices over top. Top with a sprig of fresh dill. Glaze.

8. Luncheon meat, egg and gherkin: Butter and trim crusts from a slice of sandwich bread. Top with a slice of olive-pimiento luncheon meat. Top with slices of hard-cooked egg and garnish with gherkin slices. Glaze.

Sandwich Plate Suppers

Four open-face sandwiches arranged on individual serving plates might feature the following:

- One slice of buttered French bread topped with slices of rare roast beef, sliced tomatoes, and 2 or 3 anchovies.
- A buttered round of rye bread topped with a slice of cheese and halved hard-cooked eggs garnished with chopped chives.
- A buttered slice of caraway seed bread topped with sliced chicken and garnished with crisp bacon strips and sauteed button mushrooms.
- A buttered slice of bread topped with sliced ham or luncheon meat and cole slaw or potato salad.

Seasoned Butters

Cream butter until soft. Gradually stir in other ingredients, varying the amounts according to taste.

Curry Butter—with chicken, cold meat
¼ c. butter
½ tsp. curry
1 tsp. lemon juice
Dash of cayenne

Horseradish Butter — with roast and corned beef
¼ c. butter
2 tsp. horseradish
1 tsp. dry mustard
1 T. minced parsley

Herb Butter—with tomatoes, cucumber
¼ c. butter
1½ tsp. thyme
1 T. chopped parsley

Pay tribute to your guests with a picture-pretty plate of artfully arranged open-face sandwiches. Sandwich topping freshness may be preserved with a glaze, using the recipe on this page, or a softly jelled aspic mixture. Canned consomme, softly jelled by chilling, may also be used for glazing





No. 3692. Short sleeves or long may be added to turn this pleated jumper into a dress. Square yoke may be bias cut or not. 2-8. 60¢.

No. 3272. Pattern includes back-buttoned dress, ruffled at neck and full sleeves; jumper and vest. Girls' 4-12. 60¢.

No. 3200. Self-ruffling trims sleeves and neckline of a back-buttoned dress with ribboned high waist. Girls' 4-12. 60¢.

Let's Look at Fall Fashions

To order patterns on this page use Butterick coupon on p. 36.

FALL FASHION thoughts turn first to classroom clothes when you have children in school. With schools re-opening late this month in some provinces, and early next month in others, wardrobe check-ups must be fitted into the busy days of harvest and preserving season.

The classic lines in little girls' clothing—action skirts full with gathers, gores and pleats—are equally in fashion for mothers this fall. The dimidi skirt is enjoying a revival, although somewhat modified and gently gathered to be more flattering to all ages.

There's a wonderful variety in styling this fall, guaranteeing something for everyone, regardless of figure type and age of wearer. Fashions are

shapely; fit is achieved through yoke treatments, shaped darts, and more emphasis on belting. Waistlines move about from high Empire to almost hipbone level, often accented by seaming detail. Welt seaming is used on many of the new suit, dress and coat styles and many of these feature a side-wrap closing. As a matter of fact, it's sometimes difficult to tell the coats, dresses and suits apart. The coat dress is high on the fashion-favored lists for fall and winter; and jacket dresses often look like suits at first glance. The ensemble look of coat and dress, dress and jacket, and two- and three-piece suit-mates is high fashion still, in one fabric and color or in two designed to go together.

SOME COLORS stand out in the fall-winter fashion selection. One group, called Rajah blues, run from blue-green blends in brilliant turquoise through peacock to deep teal. Deep navy and royal blue, so popular for spring, continue among the fashion shades for fall and winter months.

Bengal pinks range from brilliant hot pink to deep wine reds. Pale mauve and crushed raspberry are new for fall.

Jungle greens blend in textured tweeds and prints. In solid color fabrics, you'll see shades from mossy, rich green to chartreuse and avocado.

Bazaar reds feature a new, young brilliant orange-red alone and in stunning combination with mustard, gold and yellows.

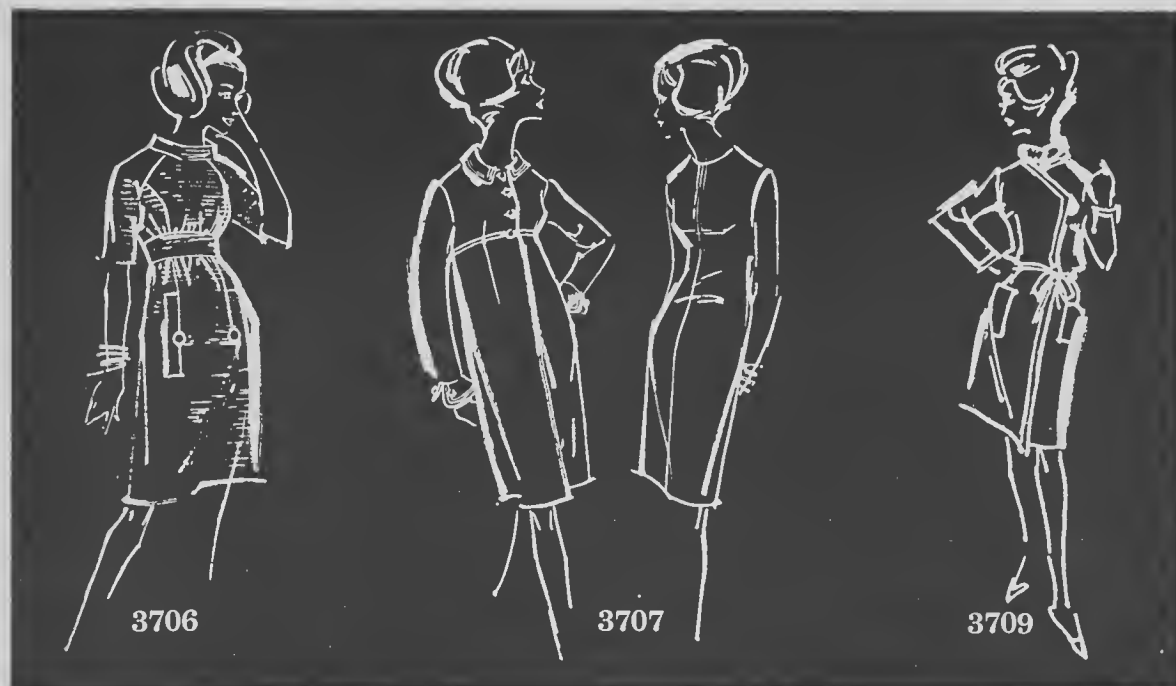
Monsoon grays are among the most important fall fashion colors, appearing over and over again in suits, dresses and coats. The emphasis is on the medium to dark tones of gray.

SUPERB WINTER OPEN-WEAVE FABRICS include bulky wool tweeds, airy wool knits, luxurious wool laces and crochet effects—all with a handcrafted quality. Some are bonded for easier sewing and handling. A novel quilted look has been achieved in sculptured corduroys, rug-weave coatings, puffed woollens and new stitchless quilted effects created by chemistry, not needle.

There's more variety than ever this year in double woven and reversible fabrics in a selection of weight and colors. The big news in knits is the bonding on knits and jerseys. Tweeds are flatter, and smoother surfaced. Crepes are gently textured in dress, suit and coating weights; wool crepes are especially handsome in single and double face versions.

Elegance is emphasized in fabrics for after-dark wear. Generally, the favorite fabrics are more refined, more feminine. Fragile pastel brocades, shantung weave and double face satins, velvet, solid and printed chiffons and sheers are popular. Dramatic black laces turn heads, although pastel laces are seen too.

Fun fabrics include wide wale corduroy and cotton velours, pastel suede fabrics, easy-sew felts and fake furs and leathers.



No. 3706. Gerald McCann designs a back-zipped midriff-banded dress. Jr. 9-13, Misses' 10-16. \$1.10.

No. 3707. Designer Jean Muir mates a sleeveless, semi-fitted, top-stitched, lined dress with a high-waisted, slim coat. Jr. 9-13; Misses' 10-16. \$1.10.

No. 3709. Quick 'n easy side-buttoned coat tops its own slim-fitted dress. Sizes 12½-22½. Price 85¢.

Boy and Girl

Mother Nature and the Swollen River

by BESS FOSTER SMITH

IT WAS early spring. Mother Nature usually got up early after the spring work began. But one morning after an especially hard day, she overslept.

Suddenly she was awakened by a knock at her door. She quickly slipped into her monk's robe dressing gown and lady slippers and hurried to the door to see who wanted her at this hour of the morning.

It was Mr. Frog, his beady eyes glistening with excitement. "Oh Mother Nature," he croaked, not stopping to say good morning. "I came to tell you there is something wrong with the big river. He is swollen and frothing at the mouth and roaring out loud! He has spread himself all over our ponds and we've had to move out."

"Mercy sakes!" Mother Nature cried. "What shall I do? All my dear little valley children will be drowned and they had such a good start, too!"

"He must have been overeating," Mr. Frog suggested.

"Or drinking!" sneered Mother Nature as she rushed about to find her raincoat and rubbers. "Come on," she called to Mr. Frog, "we'll see what can be done."

The scene was even worse than Mr. Frog had described. The great river rushed and roared and poured itself out over the fields of tender grain and young corn and even flooded the homes of the humans who lived in the valley. They were standing about forlornly.

They shook their heads and said to one another, "It must be a chinook," as they pointed to the great mountain on the west as if he had something to do with it. For, indeed, it was plain to see that where he had been snow-capped and silent for ever so long, he now stood black and frowning in the early dawn.

When Mother Nature heard them say "chinook" she realized who was to blame. It was a trick of the Wind and she did not approve of it. Probably the Sun was also mixed up in it.

She set out at once to search for

the Sun and the Wind. She scolded herself as she went. "Up to mischief again! Never quite satisfied to just blow or shine as they should! Always trying some new caper!"

At that moment the Sun, looking as bright and smiling as could be, came up over the hill, nodding good morning here and there in his most cheery manner.

And then the Wind stirred pleasantly in the treetops and bowed his morning greetings. Mother Nature did not return their greetings. Instead, she stepped up to them and lifted them nearly off their feet by a firm hold on the back of their collars. Whirling them around as if they were naughty school boys, she said in a firm tone, "Look here, you rascals, who is to blame for this swollen river? Speak up now, I want the truth."

"Oh please, Mother Nature, let me loose and I will explain everything," sighed the Wind.

"Yes, everything!" the Sun agreed, blinking his eyes.

"Aren't you ashamed!" she cried as she turned them loose.

"We are indeed." Then the Wind bowed his head and said, "It was partly the Mountain's fault. He wanted it to be warmer because there were some little forget-me-nots that he was trying to help through the snow..."

"Yes," Mother Nature interrupted, "Go on."

"So I shone warmly on them to help them through," interrupted the Sun.

"I tried to help too," continued the Wind, "but the Sun was so hot I couldn't stand still. I ran all the way down the mountainside. I was very hot and out of breath. Everywhere I went the snow melted and, well, I guess the river just couldn't hold so much water."

"Something must be done at once," Mother Nature said. Turning to the Sun she said firmly, "Leave this place at once! Don't show your face here again today!"

This punishment was almost more than Sun could bear. He had planned

a lovely day. Still, he bowed his head and hid himself in a cloud without a word.

"And you," she said to the Wind, "you find Jack Frost as quickly as possible and take him back to the mountain to lock up all the streams that have been coming down. Hurry now!"

"O.K.," answered the Wind, glad to be off. "But you'll have to look after your valley plants. Jack Frost is a tricky fellow and would as soon freeze everything in the valley while he is about it."

"Leave that to me," Mother Nature answered sharply for she was quite out of patience and very nervous.

Almost at once the Wind changed to the east. It blew colder and colder.

Looking first at the river and then at the sky, the valley people said, "Thank goodness, the river is going down. Still we might have a heavy frost if it clears up."

But it did not clear up. Mother Nature sat up all night, tucking warm cloud blankets around her tender little valley plants. Her friend the Frog stayed up too, trying to cheer her with his songs of thankfulness.

Next morning, before she went home to snatch a little rest, she looked at the big river. He was back to normal.

"How do you feel?" she asked kindly.

"Much better, thanks," replied the river, "I must have had a touch of spring fever."

Young People

Buying New Shoes

FOOT HEALTH depends on a good fit in shoes, good posture, good walking habits and proper care of the feet. Healthy feet are attractive; sick feet unsightly, painful and inefficient. They result from poorly fitted shoes, shoes that don't give enough support or shoes that have heels which are too high.

Your feet continue to grow until you are 20 years old. For this reason Canada's Shoe Information Bureau recommends that you check your foot size at regular intervals in accordance with your age. The 10- to 12-year-olds should check every 3-4 months; the 12- to 15-year-olds every 4-5 months; the 15- to 20-year-olds every 6 months.

This does not necessarily mean you will need a larger size of shoe each time you check your foot size. It's only a guide. But, if you follow it, you should not have the kind of foot troubles that are caused by squeezing your feet into shoes that you have outgrown.

Don't buy shoes by size. Do have both feet measured each time you buy. Sizes vary with different makes of shoes and because your feet may still be growing, they can change considerably from one size to the next.

If your feet swell in hot weather, buy shoes for summer wear on a warm day. Again, do buy shoes that fit because alterations rarely prove satisfactory. Take your time when you shop. Make sure the shoes feel comfortable before you leave the store. Then your shoes should give the same comfort as bare feet.

What you wear on your feet and how you take care of your shoes reveal the type of person you are. Wear shoes that are appropriate for the occasion. School shoes should be tailored and comfortable, preferably tie shoes for girls and oxfords for boys. High heels are out! For casual wear, choose brushed leathers, pigskins and man-made materials. For dress-up occasions, you'll find a wide variety of dress heels, from low-shaped types to illusion height, depending on your age group.

Learn to look after your shoes. Run-over heels and shoes that are out of shape place a strain on your feet. Check them regularly and keep them in good repair. Clean, brush and polish them often. To keep your shoes in shape you can use shoe trees. If you don't have trees, stuff the forepart with tissue paper. It's also a good idea to air shoes after each wearing; a day's rest is good for both feet and shoes. And, if your shoes get wet, wipe them, put trees in and dry away from direct heat.

Historic Project for 4-H'ers

NEWFOUNDLAND 4-H'ers have an unusual project. They're going to learn about their communities and look for ways in which they can help to improve and beautify them. They'll also learn how to do historic research, how to survey specific areas and how to prepare detailed maps of communities in any given club area.

As the community history projects idea develops, 4-H clubs will probably sponsor "community history nights." The idea is that residents in a community will exchange reminiscences and recount the history and folklore of their home districts through photograph collections, antiques, souvenir collections, fashion shows and pageants.

The next step would be community service projects in which 4-H clubs might clear and develop playground facilities, paint and repair community buildings, fences and bridges.

Newfoundland's 4-H director David Malcolm explains it this way: "Now is the best time to learn about your community, especially as Canada approaches her 100th birthday. Local people and tourists will be more interested than ever in your hometown's history, its beauty and its historic sites."

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THE TROTTING MARE

hanging over the back of the cart, a straw dangling from his mouth, and from the group about him we could hear the odd burst of laughter. Aunt Bess wasn't seeing the men and horses. Her eyes went farther down the road to where, just past the Correction Line, you could see the white gable of Molly Trueman's house.

I saw Mr. Shulton look at our house, then up toward the sun. Uncle Bob was late, he should have been here a half hour ago. Grayling's Fancy was hitched and tied to a post, her head drooping, one hip lower than the other, and her bottom lips loose and hanging. She didn't look as if she could beat a Clydesdale, and him hitched to a plow. Mr. Shulton took out his watch and motioned to the other drivers to clear the road.

ONLY TWO trotters could run down that width of road at one time, that was why they ran heats until one beat, two out of three, the winner to take on the top man of some other heat. And so on, until all were eliminated but two. Then there was a big exciting race, sudden death, to see who would be crowing from the top of the fence for the next year.

This year Uncle Bob and Mr. Shulton were the top two, and at three o'clock they were going to run the deciding race. I looked up the road toward town. No sign of Uncle Bob.

It was the rule that if one contestant wasn't there at the given time, the driver who was ready had to start down the course, anyway. The thoroughfare could not be blocked for long and when heats were being run, men were posted down the stretch to keep all traffic off it, so that nothing would interfere with the racing trotters.

You could tell that Mr. Shulton was anxious to get started by the way he tooled Slap-Up out to the starting line and got all set, the lines short in his hands, his feet resting along the shafts past Slap-Up's flanks. It seemed to me he was in an all-fired hurry to get started, as if he was afraid he'd lose unless Uncle Bob defaulted.

The clock ticked on. The race was to start sharp on the stroke of three, and Uncle Bob nowhere in sight. I squirmed and looked from Fancy to Slap-Up and back to the clock again. Ten minutes. Where was Uncle Bob? Eight minutes! The ticks of the clock seemed to run together they were coming so fast.

Suddenly the phone rang and both me and Aunt Bess jumped. Three long rings was our call. The first ring was sturdy, the next wavered a bit, and the third one was just a tinkle. The clock said five minutes to three. Aunt Bess reached the phone, but I was so busy watching the hands of the clock that I didn't hear her say "hello." Then her voice rang sharply.

"Just hang on, Molly-girl," she cried. "Just get into bed and hang

on. I'll be there in a minute. Now, don't worry!"

She slammed up the receiver and in the same moment caught up a little satchel that had been sitting right under the phone. Before I could breathe she flashed out of the kitchen door. In the yard she paused and looked around. Her eyes fell on Fancy, standing by the hitching post. Before I could guess what she was about, she had unsnapped the halter-shank that held the mare and had swung herself onto the little tilted seat of the racing cart. She jerked the lines.

"Get up!" said Aunt Bess.

Startled at the strange voice and the strange hands on the lines, the mare flung her head high but didn't budge. The red flew into Aunt Bess's cheeks. She reached for the buggy whip that leaned against the hitching rail, and, in the same movement, brought it down across the drooping flank of Grayling's Fancy. The mare simply leaped into the air. The wheels bounced so high I could see daylight before one wheel scraped the gatepost and they were out on the road.

I tried to yell to Aunt Bess to stop, but my tongue stuck to the roof of my mouth and I knew my eyes were popping. Down the road they went, the thoroughly aroused Fancy stepping out as if her hoofs didn't need to touch the road at all.

The clock over my head struck three when Aunt Bess was five or six yards from the starting line and the waiting Shulton. The black had been fidgeting for ten minutes and when Mr. Shulton shook up the lines, Slap-Up and Grayling's Fancy swept over the starting line together.

THE GROUP OF MEN on the road were as frozen as I was. Down the road the two carts flew, swaying as the speed increased. Aunt Bess still held the whip, but the well-trained Grayling's Fancy never broke her gait, only stretched out farther if such could truly be. As they topped a slight rise halfway down the stretch, I could see that Fancy was leading Slap-Up by the length of the racing cart.

I turned and dashed up the stairs to the hired man's room. From there you could see the end of the Correction Line. On down the last half they went and I saw the two lookouts on the hill wave as the horses swept by. I could see Aunt Bess's arm raise and I thought she threw her whip away. If that was so, Fancy paid no mind, just seemed to lean into the wind and run faster, as if she knew a lot depended on her.

I grabbed a pair of binoculars from the hired man's dresser. If I had to go without desserts for a week it would be worth it to see the finish. When I finally got the racers in focus, I could see that Aunt Bess was leaning forward in the cart and that Fancy was two lengths ahead of Slap-Up.

Then they were over the finish line and the group there were wav-

ing their arms, and you could see them shouting. Little by little, Mr. Shulton pulled Slap-Up in so that when he reached the Correction Line he had the black ready to turn and trot back. But not Aunt Bess.

Through the glasses I could see that Fancy was reaching out farther than ever, even without the whip, and my heart leaped into my throat as the light sulky rocked first to one side and then to the other as they raced through the double right-angled turns of the Correction.

Miraculously the sulky righted itself, and I saw Aunt Bess jerk the lines to guide Fancy into Molly's gate. This time the wheel did more than scrape the gatepost. To my horror I saw that it was torn right off. Aunt Bess was thrown from the cart seat and Fancy, trailing the wrecked cart, disappeared around the corner of Bateman's oat stack. Aunt Bess didn't seem hurt, for she picked herself and her bag up and ran onto Molly's porch.

I tumbled back down the steps, almost missing the last three, and headed for the door. Uncle Bob was just driving into the yard. He had hurried, for Old Bill was dark-streaked with sweat and there was a worried look on my uncle's face.

"Uncle Bob! Uncle Bob!" I yelled. "We won! We won the race! Grayling's Fancy beat Slap-Up! She beat him!"

I was almost hysterical. Uncle Bob leaped to the ground to seize my shoulders and give me a rattling good shake. It brought me back to my senses, and I calmed down enough to be able to tell the whole thing straight. Uncle Bob threw back his head and laughed until I thought he'd never stop.

"What about Aunt Bess?" I asked. I didn't feel the least bit like laughing. "And Molly?"

Uncle Bob sobered right away.

"Come on, Johnny," he directed. "Put Old Bill away and we'll do the chores early. Don't unharness him for we'll be going down to Bate's for supper. I guess that's the end of Grayling's Fancy. I'll have to sell her for sure after this kick-up. Never mind, that race'll bring her up to a good price, anyway. Hate to sell Fancy but I guess I ain't got no choice!"

He was wrong there. While we were eating supper late by lamp-light and Bate was upstairs, Aunt Bess told us about Molly's baby and how beautiful she was.

"I'll sell Fancy as soon . . ." Uncle Bob started to say.

"Indeed you'll not sell Fancy!" Aunt Bess rounded on him in anger that was just put on to hide the tears in her eyes. "I never heard of such a thing! Sell the best stepping animal on the place? Let me tell you, Bob Linton, you'll sell that mare over my dead body!"

My mouth fell open to my shirt collar at her words, and I wasn't interested when Aunt Bess went on to say that Molly was going to name the baby Elizabeth after herself. I really wasn't interested until eighteen years later when I changed the baby's name to Linton, though as my wife, she will always be Elizabeth. V



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News Highlights

(Continued from page 9)

history), and pitted farmers against labor in a direct confrontation.

Explained United Grain Growers President A. M. Runciman, "In cases like this, where farmers negotiate directly with labor, the farmer has no one to whom he can pass along his extra costs. He must absorb them — take them out of his land. Right from the start, substantial wage boosts were offered in Vancouver. If the settlement results in still higher wages, the farmer must absorb the total costs." V

PERSONALIZED MANAGEMENT SERVICE

Low income farmers in northern Saskatchewan will now be able to get a personalized farm planning and budgeting service from the province's department of agriculture. Government officials estimate that 10,000 farmers may eventually make use of the service.

Meanwhile in Manitoba, a specialized management service is being developed and offered at a fee of about \$200 a year each to about 75 farmers in that province. This latter

is a step beyond the farm management advisory services offered to the Carman and Western Manitoba Farm Business Associations, and the farm business clubs there.

It is a sign of the times. Farmers today are turning to computers for help. By the end of this year, South Carolina Farm Bureau expects to be providing a computer accounting service for 100 clients for an average annual fee of \$135. In Georgia, over 300 farmers will be receiving a similar service this year. The California Farm Management Extension Service is using an electronic computer to analyze irrigation costs. In 1964 nearly 1,200 farmers paid an average of \$107 each to participate in Michigan State University's mail-in accounting project. A project has just been completed at Purdue University in Indiana which demonstrated how linear programming can be used in a completely integrated hog operation.

Electronic accounting, linear programming and data processing are management tools which are now being used by top-flight farm managers. Manitoba and Saskatchewan officials expect the trend to spread. V

EDITORIAL

(Continued from page 8)

of a livestock program must be locally grown feed, whether that is in Ontario, the Maritimes, Quebec, or the Prairies.

Despite the present feed freight assistance program, Ontario's dynamic livestock industry has not been built up on Prairie grain, but rather on home-grown corn and barley and forage crops. Today on the Prairies, a rash of feed mills and packing plants are being built because despite the feed grain subsidy which works against them and the extra subsidy to Quebec hog men by the provincial government there, Prairie livestock growers can produce livestock efficiently enough to overcome these barriers. Witness the present surge in hog and cattle production in the Prairies — this isn't another temporary gyrations of the production cycle which will blow itself out when prices ease off once more — this time, it almost certainly is serious farmers who are deciding that hogs and cattle offer sound ways to expand their enterprises and boost their income. These farmers can produce their livestock efficiently enough, using their home-grown feed and available labor, that they

can meet any natural competition thrown against them.

One can sympathize with farmers on small farms who do not have the land resources or who have failed to develop them sufficiently, to farm effectively. But a solution to their problem, based on a complete misconception about the basic forces at play in agriculture today, would be calamitous, not only for those who are supposed to benefit from the changes, but for all farmers, and thus for this country as a whole.

If Mr. Sauvé's thinking is representative of that prevalent in any part of Canada, and particularly of that within the cabinet and government in Ottawa, farmers across this country must for their own safety be sure that it can be changed in the months ahead.

Canada cannot afford to sacrifice its most productive farm areas and dash the plans of the farmers there, in a futile attempt through government regulation and subsidy, to shift production to other areas. Government's job is to see that all farmers in all areas have an equal opportunity to produce efficiently. Then, livestock will be produced in this country where it should be produced — where it can be done most economically. V

Letters

Beautiful Lines

I am writing to express my gratitude to you for publishing such an admirable poem, "June Tryst."

Hundreds of people must have read those beautiful lines, remembering their childhood. I know I did, and I think many eyes were a little dim, where tears were being held back.

I am an artist, and colors are my medium of expression, but how I wish I could use the medium of words like Blanche M. Kennedy.

*Nostalgia keen as pain floods in upon
My heart today.*

*And through the shadows of this phantom room,
More tangible than anything within,
There floats a breath of clover-bloom
As urgent and compelling as a cry.*

I sincerely hope we have more poems by this gifted poetess.

I thought the illustration excellent—the tenderness in the expression so suitable to such a splendid poem.

Continued success to your great magazine.

P. G. SLEIGHT,
Penetang, Ont.

P.S. Your weather forecasts are the best.

For Horse Lovers

I am sure many horse lovers will have fond memories of friends like our horse Peggy. She was sired by a Welsh-Shetland stallion, and was born May 1, 1932. She grew up to take all five of our children to school at different times, in a cart or small sleigh. She also enjoyed rounding up the cows, and was in

our town parade just over a year ago.

Our most grateful feelings to her are for bringing home three of our children through three blizzards, late but safe. The storms were so bad the children could not see, so they gave Peggy the reins and she brought them home through two gates and didn't get hung up. Our children had 6 miles to go to school.

MRS. O. F. PETERSON,
Gull Lake, Sask.

A Bouquet

Country Guide is very educational and interesting and we thoroughly enjoy each and every copy. I realize it must take a lot of effort from everyone connected in any way with the editing and publishing of such a fine magazine. Keep up the good work.

J.C.A.,
Komoka, Ont.

More Poultry

I would appreciate more poultry articles and items dealing with small farms. Most magazines today cater to the large-scale farmer.

G.M.,
Sault Ste. Marie, Ont.

Correction

Several readers have inquired about an error in knitting instruction leaflet No. C-7895. If you ordered this leaflet, please correct your copy, row 21, to read as follows: *K1 tbl, yfd, sl 1, K2, pss0, yfd, sl 1, K2 tog, pss0, yfd, (K1 tbl, yrn twice) twice, k1 tbl; rep from * to end.—Ed. V



Hi Folks:

Every once in a while I run into somebody who gets mad as a hornet when they hear that expression "the good old days." "What was so good about the old days?" they snarl. And they are perfectly right.

If you happen to be one of those people who yearn for the past, there's a name for you—you're a reactionary. Mr. Douglas applies this word to people and policies all the time. It's a form of contempt.

To me, the "old days" refer to the days before World War II, and believe me, life was sure a pretty dull proposition. Times were so bad we just raised enough food to feed the family and keep a bit of clothing on our backs. There really wasn't much to work for (or worry about) because the banks owned most of the farms, so we devoted a lot of time to non-productive things such as fishing.

Not so today. Our lives are chock-full of purpose. We live in the happiest of worlds because we work so that other people may have a full and abundant life—people like Walter Gordon, the shareholders of farm equipment companies and the Farm Credit Corporation. These people appreciate us so much they almost hug us to death. There is a name for this too—it's called the Cost-Price Squeeze.

Remember the fishing in the old days? It sure did leave a lot to be desired. The fish were so tasteless you had to put WOOSTER sauce on 'em so you could tell you were eat-

ing. We don't bother to use any sauces or appetizers now. Ever since they built that oil refinery a few miles upriver our fish have come in an assortment of dandy flavors. In fact, we don't even bother to fish.

A few years ago I caught a six-pound trout and Sara put it in the oven to bake. When I opened the door to see how it was coming along I almost gagged. It was like poking your nose into a hot crankcase. Being hopeless reactionaries we stuck the fish outside so the cats could feast on it. But the ungrateful so-and-so's high-tailed it over to Ted Corbett's and didn't come back for two days. I never did see such reactionary cats. Best part about fishing today is that you seldom find one that's wormy. I'm told it's the DDT which keeps them pure.

I was discussing the old days with Ted Corbett only last week. "If some joker were to wave a magic wand and take you right back to those bad old times, what would you miss most of all?" I asked him.

"That pretty colored creek we cross on our way into the city," he said promptly. "Especially there by the little waterfall where it foams and bubbles. Remember how weak and watery it used to look before they added all them detergents?"

"Next to that I'd miss our air," he went on. "Remember how disgusting it used to be? You took a deep breath and what did you get—just air. There was nothing to put a bit of zing into it—no fumes and no fallout. Why we never even heard of a Geiger counter!"

Like the fella said, "What was so good about the old days?" Unless, of course, you happen to be a pesky reactionary like me.

Sincerely,

PETE WILLIAMS.